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VOLUME 17

Edited by

W. E. CHINA, C.B.E.

Assistant Secretary to the International Commission on Zoological Nomenclature

and

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formerly Assistant Secretary to the Commission

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R. V. MELVILLE

Assistant Secretary to the International Commission on Zoological Nomenclature

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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B. The Members of the Commission

(*Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology*)

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Dr. D. V. OBRUCHEV (*Palaeontological Institute, Academy of Sciences, Moscow B-71, USSR*) (5 November 1958)

Professor Tohru UCHIDA (*Department of Zoology, Hokkaido University, Japan*) (24 March 1959)

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NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its Plenary Powers is involved in the following applications published in the present part of the *Bulletin* :—

(1) Suppression of the generic names *Orthoceros* Brünnich, 1771 and *Orthocera* Modeer, 1789 so as to stabilise *Orthoceras* Bruguière, 1789 (Class Cephalopoda). Z.N.(S.) 44 ;

(2) Suppression of the generic name *Orthoceratites* Lamarck, 1799 so as to conserve *Hippurites* Lamarck, 1801 (Class Pelecypoda). Z.N.(S.)1395 ;

(3) Suppression of the generic names *Prothechus* and *Alloneura* Rondani, 1856 (Class Insecta, Order Diptera). Z.N.(S.) 230 ;

(4) Designation of a type-species for the nominal genus *Beraea* Stephens, 1833 (Class Insecta, Order Trichoptera). Z.N.(S.) 395 ;

(5) Designation of a type-species for the nominal genus *Apatania* Kolenati, 1847 (Class Insecta, Order Trichoptera). Z.N.(S.) 427 ;

(6) Designation of a type-species for the nominal genus *Aphrophora* Germar, 1821 (Class Insecta, Order Hemiptera). Z.N.(S.) 478 ;

(7) Validation of *Drepanella* in place of the generic name *Depranella* Ulrich, 1890 (Class Crustacea, Order Ostracoda). Z.N.(S.) 1112 ;

(8) Validation of *Westonoceras* in place of the generic name *Westenoceras* Foerste, 1924 (Class Cephalopoda). Z.N.(S.) 1226 ;

(9) Suppression of the specific name *saccharivora* Peterkin, 1790 (*Phalaena*) (Class Insecta, Order Lepidoptera). Z.N.(S.) 1315.

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
1st *October*, 1959.

RICHARD V. MELVILLE
Assistant Secretary
International Commission on
Zoological Nomenclature

PERSONNEL OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Death of the Honorary Life-President of the Commission

The Commission announces with great regret the death, on 12 January 1959, of their Honorary Life-President, Karl Jordan, Ph.D., F.R.S. at the age of 97. Dr. Jordan was elected a member of the Commission at the Ninth International Congress of Zoology (Monaco, 1913) and presided at the sessions held in conjunction with the Congresses at Padua in 1930 and Lisbon in 1935. He was re-elected President of the Commission at Paris in 1948 but begged to be excused on the grounds of deafness, and was thereupon elected Honorary Life-President, as a mark of the affection and esteem in which he was held.

An obituary notice of Dr. Jordan is being prepared by Mr. Francis Hemming and will be published in the *Bulletin* as soon as possible.

Resignation of a Commissioner

On 24 July 1958 Mr. P. C. Sylvester-Bradley (University of Sheffield, England) wrote to the Secretary to the Commission resigning from his position as a Commissioner.

Election of three new Commissioners

The following new members have been elected to the Commission in accordance with the procedure laid down by the International Congress of Zoology, with effect from the dates shown in each case :—

Dr. Max Poll, Chef de la Section des Vertébrés, Musée Royal du Congo Belge, Tervuren, Belgium (12 July 1958)

Dr. Dmitri Obruchev, Professor of Palaeontology, Academy of Sciences, USSR, Moscow (5 November 1958)

Dr. Tohru Uchida, Professor of Zoology, Hokkaido University, Sapporo, Hokkaido, Japan (24 March 1959)

NOTICE

The Trustees of the British Museum (Natural History) have allocated accommodation for the Commission's office in the Museum. It will readily be appreciated that this will greatly facilitate the work of the Commission by reason of the unique library facilities and wide range of specialist advice available. The Commission desires to acknowledge publicly its gratitude to the Trustees for their generous action.

Members of the Commission and correspondents are asked to note the new address of the Commission's office given below.

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
24 August 1959.

N. D. RILEY,
Honorary Secretary,
International Commission on
Zoological Nomenclature.

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

FINANCIAL REPORT FOR THE YEAR 1957

The Balance Sheet and the Income and Expenditure Account for the year ended 31st December 1957 are appended hereto and they are accompanied by the certificate of the auditors, Messrs. W. B. Keen & Co. of London.

It will be seen that the financial resources of the Trust increased during the year by £2,800 and the total assets of the Trust at the end of the year were in excess of £10,000 for the first time.

During the year provision was made for the expenditure which would necessarily fall on the funds of the International Trust in connection with the International Congress of Zoology to be held in London in the summer of 1958.

The Committee of Management acknowledges with gratitude a donation of £178 11s. 5d. from U.N.E.S.C.O. per the International Union for Biological Sciences.

INTERNATIONAL TRUST FOF

Incorporated under the Companie

Balance Sheet—

1956 £	1956 £		£	s.	d.	£.	s.	d
		Revenue Reserves (per separate accounts)—						
	436	" Official List " Suspense Account...	789	10	5			
	98	Office Equipment Reserve	–	–	–			
	6,077	Income and Expenditure Account—Balance ...	8,879	1	2			
6,611						9,668	11	
		Provision for Cost of Revision of International Code—						
677		" International Code (Publication) " Suspense Account (per separate account)				–	–	
		Provision for Cost of Colloquium on Zoological Nomenclature—						
—		Colloquium Suspense Account (per separate account)				742	6	
		Liabilities—						
167		Sundry Creditors				135	9	
£7,455						£10,546	7	

REPORT C

We have obtained all the information and explanations which to the best of our knowledge and belief we
from our examination of those books. We have examined the above Balance Sheet and accompanying Incon
our information and according to the explanations given us, the said accounts give the information required by t
Trust's affairs at 31st December 1957, and the Income and Expenditure Account gives a true and fair view of t

Finsbury Circus House,
Blomfield Street,
London, E.C.2.

4th February 1958.

OOLOGICAL NOMENCLATURE

ct 1929 (Limited by Guarantee)

1st December, 1957

1956 £	£	£		£ s. d.	£ s. d.	£ s. d.
			Fixed Assets—			
			Office Equipment—			
	325		Book value at 1st July 1948 and additions since at cost		377 11 8	
		159	*Less* Depreciation	181 2 9		
		—	Amount written off from Office Equipment Reserve ...	97 16 8		
	159	—			278 19 5	
166	—					98 12 3
			Current Assets—			
	2,900		Amounts due for Publications valued at		3,500 0 0	
	4,389		Balance at Bank and Cash in Hand		6,947 15 4	
7,289						10,447 15 4
			(Note—Stock of Publications not valued)			
£7,455						£10,546 7 7

FRANCIS HEMMING
FRANCIS J. GRIFFIN } Members of the Committee of Management

THE AUDITORS.

ecessary for the purposes of our audit. In our opinion proper books of account have been kept, so far as appears nd Expenditure Account, which are in agreement with the books of account. In our opinion and to the best of Companies Act, 1948 in the manner so required, and the Balance Sheet gives a true and fair view of the state of the Excess of Income over Expenditure for the year ended on that date.

(Signed) W. B. KEEN & CO.,
Chartered Accountants.

Income and Expenditure Account fo

INCOME

1956 £	1956 £		£	s.	d.	£	s.	d
		To Sales of Publications—						
	7,235	Opinions and Declarations	8,651	14	6			
	3,703	Bulletin of Zoological Nomenclature... ...	6,035	1	3			
	—	Copenhagen Decisions on Zoological Nomenclature	127	0	8			
10,938						14,813	16	
4		,, Donations				64	5	
357		,, Grant from U.N.E.S.C.O. per the International Union for Biological Sciences				178	11	
£11,299						£15,056	13	
2,631		To Balance brought down				5,802	6	
4,467		,, Balance at 31st December 1956 brought forward				6,076	14	
£7,098						£11,879	1	

“ Official List ”

1956 £		£	s.	d
500	To Transfer from Income and Expenditure Account	1,000	0	
536	,, Balance at 31st December 1956 brought forward	436	3	
£1,036		£1,436	3	

Office Equi

1956 £		£	s.	d
98	To Balance at 31st December 1956 brought forward	97	16	
£98		£97	16	

he year ended 31st December 1957

EXPENDITURE

1956 £	£	£		£ s. d.	£ s. d.	£ s. d.
			By Administration Expenses—			
			Salaries—			
		715	Administrative Officers ...	1,102 13 1		
		547	Others	405 19 6		
	1,262	—			1,508 12 7	
	1,282		Office Expenses		963 10 6	
	52		Audit Fee		52 10 0	
	2,596				2,524 13 1	
			Less : Proportion allocated to			
		100	" Official List " ...	100 0 0		
		30	" International Code "	– – –		
		—	" Colloquium " ...	30 0 0		
	130	—			130 0 0	
2,466						2,394 13 1
18			,, Depreciation of Office Equipment			21 16 6
			,, Publications—			
	4,234		Opinions and Declarations		4,982 10 11	
	1,950		Bulletin of Zoological Nomenclature ...		1,650 11 7	
	—		Copenhagen Decisions on Zoological Nomenclature		204 14 2	
6,184						6,837 16 8
2,631			,, Balance carried down, being Excess of Income over Expenditure for year			5,802 6 11
£11,299						£15,056 13 2
21			By Additional Audit Fee 1955			– – –
			,, Transfer to—			
	500		" Official List " Suspense Account ...		1,000 0 0	
	500		" International Code (Publication) " Suspense Account		– – –	
	—		Colloquium Suspense Account		2,000 0 0	
1,000						3,000 0 0
6,077			,, Balance carried forward per Balance Sheet...			8,879 1 2
£7,098						£11,879 1 2

uspense Account

1956 £	£		£ s. d.	£ s. d.
		By Expenditure during year—		
	500	Salaries and Office Expenses	546 12 10	
	100	Proportion of Administration Expenses ...	100 0 0	
600	—			646 12 10
436		,, Balance at 31st December 1957 carried forward per Balance Sheet		789 10 5
£1,036				£1,436 3 3

nent Reserve

1956 £		£ s. d.
—	By Amount written off Office Equipment	97 16 8
98	,, Balance at 31st December 1957 carried forward per Balance Sheet	– – –
£98		£97 16 8

"International Code (Publication)" Suspense Account

1956 £		£ s. d.	1956 £	£		£ s. d.	£ s. d.
500	To Transfer from Income and Expenditure Account	– – –			By Expenditure during year—		
574	,, Balance at 31st December 1956 brought forward	676 16 2		367	Salaries and Office Expenses	– – –	
				30	Proportion of Administration Expenses ...	– – –	
			397				– – –
			—		,, Transfer to Colloquium Suspense Account ...		676 16 2
			677		,, Balance at 31st December 1957 carried forward per Balance Sheet		– – –
£1,074		£676 16 2	£1,074				£676 16 2

Colloquium Suspense Account

		£ s. d.			£ s. d.	£ s. d.
—	To Transfer from "International Code (Publication)" Suspense Account	676 16 2		By Expenditure during year—		
—	,, Transfer from Income and Expenditure Account	2,000 0 0		Salaries and Office Expenses ...	415 1 9	
				Proportion of Administration Expenses	30 0 0	
			—			445 1 9
				Printing—		
				Draft of the "Regles Internationales de la Nomenclature Zoologique" (Bulletin of Zoological Nomenclature, Vol. 14)	954 19 4	
				Colloquium and Congress Agenda Paper (Bulletin of Zoological Nomenclature, Vol. 15) ...	534 8 4	
			—			1,489 7 8
			—	,, Balance at 31st December 1957 carried forward per Balance Sheet		742 6 9
—		£2,676 16 2	—			£2,676 16 2

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAMES *ORTHOCEROS* BRUUNICH, 1771, AND *ORTHOCERA* MODEER, 1789, SO AS TO STABILISE THE GENERIC NAME *ORTHOCERAS* BRUGUIERE, 1789 (CLASS CEPHALOPODA, ORDER NAUTILOIDEA). Z.N.(S.) 44

By R. V. Melville (*Assistant Secretary, International Commission on Zoological Nomenclature*)

Part 1. Historical Survey

The present report is based on a draft prepared some years ago by Mr. Francis Hemming, late Secretary to the Commission, in response to a request addressed to him by the Commission at their Paris (1948) meeting. On that occasion, the Commission agreed (*Bull. zool. Nomencl.* **4** : 307–310) to render an Opinion (eventually Opinion 236, *Ops. Decls. Int. Comm. zool. Nomencl.* **4** : 329–342) stating that the generic names published by Brünnich (M.T.), 1771, in his *Zoologiae Fundamenta* are available names under the Code. At the same time, it was agreed to defer a decision on the status of the name *Orthoceros* Brünnich, 1771, pending consultations with palaeontologists. The question of the status of Brünnich's work had been put to the Commission by the late Mr. R. Winckworth (*Bull. zool. Nomencl.* **1** : 113–117), but the particular problem discussed here had been brought before the Commission in a slightly different form as long ago as 1930 by Dr. A. K. Miller (now of University of Iowa, Iowa City, Iowa, U.S.A.). The first part of the present paper (paragraphs 1 to 18) describes the history of the case in the Commission's office since the receipt of Dr. Miller's application and is of historical interest as showing how progressive improvements in the Rules have increased the power and flexibility of the means at the Commission's disposal for dealing with complicated issues. Concrete proposals for dealing with the situation now disclosed are put forward in the later part of the report.

2. In his communication, Dr. Miller pointed out that the name *Orthoceras* had been for many years generally in use for an extinct group of long, straight, nautiloid cephalopods and attributed to Breynius, 1732. Apart from the fact that this author's work is not available for use in zoological nomenclature (having been published before 1758), the name which he used was not *Orthoceras* but *Orthoceratites*. This latter name was also used by Gesner in 1758 (a non-binominal author) to denote both nautiloid cephalopods and *Nodosaria*-like foraminifera with straight, elongate shells. The first author to publish *Orthoceras* as an available name was Bruguière (1789 ; *Ency. méth., Hist. nat. Vers*, pt. i : xvi) as follows: "ORTHOCÉRATE.—Orthoceras. Coquille conique, composée de cloisons transverses, & d'une gouttière sur un des côtés, l'ouverture fermée par un opercule." No species were then included in the genus, but (according to Dr. Miller) Bory de St. Vincent in 1824 (*Tabl. ency. méth., Helminth. ou vers infusoires, etc.*) listed "*Orthocera raphanus* Lamk. VII. 593" and "*Orthocera legumen* Lamk. VII. 595" and these species are figured in Plate

465 of Lamarck's *Tabl. ency. méth.*, etc. as *Nautilus raphanus* and *Nautilus legumen* respectively. Dr. Miller also stated that in 1799 and 1822 Lamarck applied the generic names *Orthocera* and *Orthoceratites* to foraminifera. The position was, therefore, that a generic name in constant general use in nautiloid cephalopods should have been applied to foraminifera, not only in the spelling *Orthoceras*, but also in the closely similar spellings *Orthocera* and *Orthoceratites*, and Dr. Miller asked " whether the rules should be rigidly followed in this case, or whether the Commission should be asked to establish a cephalopod type for *Orthoceras*, since the name has become so deeply embedded in cephalopod literature ".

3. Dr. Miller's case had not been put before the Commission for a ruling at the time when Mr. Hemming became Secretary to the Commission in 1936, and it was not found possible to complete it before the outbreak of war in 1939. In 1944, Mr. Hemming re-opened the case and came to the conclusion that, on the data presented by Dr. Miller in 1930, the only means whereby the name *Orthoceras* could be validated for a genus of cephalopods would have been by the suppression, under the Plenary Powers, of *Orthoceras* Bruguière, 1789 (as applied to a genus of foraminifera) and all subsequent uses of that name prior to its first use in an available sense for a genus of cephalopods. Apart, however, from the difficulty of establishing by whom, when and where the name had been so applied, there was the possibility that, by the date in question, some other generic name might have been published for the same cephalopod taxon, in which case that other name would also have had to be suppressed in order to validate the accustomed use of *Orthoceras*. Alternatively, the Commission might have been asked to designate a cephalopod species to be the type-species of *Orthoceras* Bruguière, 1789, but clearly very strong grounds would have been needed to justify the use of the Plenary Powers to transfer a nominal genus from one phylum to another while retaining its original authorship and priority.

4. Mr. Hemming had therefore begun to look about for some other method of dealing with Dr. Miller's problem when the submission of the late Mr. Winckworth's application in relation to the status of the generic names in Brünnich's *Zoologiae Fundamenta* seemed to offer the possibility of a new approach. Brünnich used the generic name *Orthoceros* (not *Orthoceras*) for a genus of cephalopods, and since he referred no species to any of his genera, their respective type-species fell at that time to be determined in accordance with the principles laid down in Opinion 46. Pending a decision by the Commission on the general question of the availability of Brünnich's generic names, Mr. Hemming enquired of interested specialists whether they would accept a solution of the problem which involved the adoption of the name *Orthoceros* as the name to be used for the group of species generally, but as it then appeared incorrectly, referred to by the name *Orthoceras*.

5. In August 1944, Mr. Hemming therefore wrote further to Dr. Miller and also sought the advice of Dr. C. J. Stubblefield (Geological Survey & Museum, London) and the late Dr. L. F. Spath, with the results set out below.

6. Dr. Stubblefield drew attention in his reply (dated 1 September 1944) to two important developments in the case which had not come to the notice

of the Commission. The first was a paper by Miller (A.E.), Dunbar (C.O.) & Condra (G.E.) (1933, *Bull. Nebraska Geol. Surv.* (2) **9** : 58–65) where the status of *Orthoceras* was discussed and illustrated. The second was a paper by Miller & Teichert (C.) (1936, *Amer. J. Sci.* **31** : 352–362) in which they concluded that " no species had ever been referred to *Orthoceras* that comes ' under the generic description as originally published ' and therefore none can be chosen as genotype " (: 353–354). They therefore rejected Miller, Dunbar & Condra's designation of *Orthoceratites regularis* Schlotheim, 1820 as the type-species, and pointed out that the conservation of *Orthoceras* for a genus of cephalopods, while desirable on grounds of usage, would involve the suppression of five valid uses of that name. They then stated a case for the adoption of *Orthoceros* Brünnich, 1771 for the genus in question, and suggested that *Orthoceratites regularis* Schlotheim might be chosen as its type-species. They did not think it either " necessary or desirable " to change the spelling to *Orthoceras* (: 360). They stated further that Bruguière's description of *Orthoceras* was almost identical with Lamarck's descriptions of *Orthoceratites* (1799) and of the well-known lamellibranch genus *Hippurites* (1801). Dr. Stubblefield also mentioned a later note by Teichert & Miller (1938, *Amer. J. Sci.* **35** : 143–144) pointing out that the first author to use *Orthoceras* exclusively for cephalopods was Deshayes (1831) in connection with the single species *O. simplex* from the " terrain de transition " of Belgium. Dr. W. G. van Leckwijk, of Brussels, kindly tells me (*in lit.* 10.2.59) that this species is unknown and that its name has never come into general use.

7. Dr. Stubblefield's own view on the general question was expressed as follows : " . . . You ask whether I think that confusion would result, either in systematic work or in the teaching of invertebrate zoology, if the name *Orthoceras* were transferred from the Mollusca to the Protozoa. I would reply that *Orthoceras* used as a name for a cephalopod is one of the few genera of fossils mentioned in Parker & Haswell's *Text-book of Zoology*, 1910 edition ; the name is similarly used in almost all the text-books of invertebrate Palaeontology ; I know of no exception. I would say also that a similar usage will be found in any text-book dealing with the general stratigraphy of the Palaeozoic rocks. In my opinion, the transference of this name to the Protozoa would create confusion, and, I am inclined to think, ridicule among those impatient of nomenclatorial matters. The name *Orthoceras* has given rise to such systematic terms as ' Orthoceroid ', ' Orthoceratid ' and ' orthocone ' ; these would presumably create confusion in the Protozoa and Cephalopod literature if a change were to be made. In conclusion, personally were I asked, I would prefer that a suspension of the rules be allowed and that *Orthoceras* (rather than *Orthoceros*) be retained for the well-known cephalopod ; in any case, with the present restriction of genera to those species close to the chosen type species, in systematic work the use of the name would be much more restricted than in the last century ; but *Orthoceras* would remain a useful, easily remembered name for the field geologist."

8. Dr. Spath, in a letter dated 4 September 1944, expressed the view that it would be unwise for the Commission to use the Plenary Powers in the present case at least until a type-species for *Orthoceras* had been validly selected. He

added that it was "probable that between 1758 and 1789 some earlier author, unknown to Miller or Teichert, used the name *Orthoceras* Breyn, 1732 (which was excellently figured) in a binary form " and that " the name *Orthoceras* as used in all modern text-books, is without exact meaning ; it is used as a synonym of ' orthocone ' or a straight nautiloid, and will continue to be so used, whatever the Commission may find, simply because it is so deeply embedded in geological literature ".

9. Dr. Miller, in a letter dated 19 September 1944, said that, in view of the developments which had taken place, the statement that he had put before Dr. Stiles in 1930 would need to be thoroughly revised, and he proposed to confer with Dr. Teichert on this subject as soon as his other commitments allowed.

10. The late Mr. Winckworth's application concerning the status of the generic names in Brünnich's *Zoologiae Fundamenta* was published in 1945 (see paragraph 1 above) and was illustrated by a facsimile reproduction of p. 246 of Brünnich's work, containing, among other things, the diagnosis of the new genus *Orthoceros*. Mr. Winckworth suggested that the close adherence by Brünnich to the descriptions given by Linnaeus in the 10th and 12th editions of the *Systema Naturae* made it possible to determine the species which he regarded as belonging to his genera. Brünnich, whose work consists of what would now be regarded as a series of simple keys, placed *Orthoceros* next to *Nautilus* Linnaeus, 1758, and by abstracting from the key, the description can be seen to be : " Testaceum, Univalve ; Multiloculare, Siphone interiori communicans, Spirale rotundatum ". Mr. Winckworth concluded that " the type must be one of the species numbered 240–249 in the section " Elongati erectiusculi " of the genus *Nautilus* Linnaeus, 1758 ", and added that he did not " think that *Nautilus orthocera* Linnaeus, 1758 (sp. no. 249) should be regarded as the type by absolute tautonymy, for Brünnich's work is not concerned with fossils ".

11. The publication of Mr. Winckworth's paper prompted Dr. Curt Teichert to write to the Commission in January 1946, and to comment as follows on Mr. Winckworth's suggestion for determining the species which should be regarded as having been originally included by Brünnich in his new genera : " To attempt to find out what species Brünnich might have had in mind when he established this and other generic names seems to be hopeless and irrelevant. The name *Orthoceros* is, therefore, available for any more or less straight, elongate, multilocular, univalve mollusc with an internal siphuncle. Since such forms are not known living, it cannot be said that Brünnich's work is not concerned with fossils. Teichert and Miller stated i.e. in the paper published in 1936 that the name *Orthoceros* had apparently never been used in connection with a specific name and that, therefore, according to Opinion 46, any species, for example *Orthoceratites regularis* Schlotheim, 1820, might be selected as the type-species of this genus. Teichert and Miller took care not to select *Orthoceratites regularis* Schlotheim formally as the type-species of *Orthoceros*. This procedure was suggested, and even recommended as a distinct possibility, but it was desired to test the feelings of palaeontologists first. In 1944, Ulrich, Foerste, Miller & Unklesbay (*Geol. Soc. Amer. Special Paper*

58 : 60) stated : 'The genotype of *Orthoceros* is *Orthoceratites regularis* Schlotheim . . . ', but it seems doubtful whether this pronouncement constitutes a valid act of 'selecting' the type-species. More probably it does not, because as it stands, the statement is incorrect; no type-species had been definitely chosen in 1944."

12. At that date it seemed clear, by virtue of the ruling given in *Opinion* 46, (a) that Ulrich, Foerste, Miller & Unklesbay had definitely referred the nominal species *Orthoceratites regularis* Schlotheim, 1820 to *Orthoceros*, (b) that this, which was the only species referred to the genus by those authors, was the first species to be so referred, and therefore (c) that their designation of that species as the type-species of *Orthoceros* was valid. After further correspondence, Mr. Hemming wrote to Dr. Teichert and Dr. Miller in January 1947 to ascertain whether, if the Commission accepted that view, the resulting addition of *Orthoceros* to the Official List with the species named as type-species would offer a satisfactory solution to the problem. The following statements are extracted from their replies : (a) *from Dr. Miller's letter dated* 8 *February* 1947 : " I believe that it would be very desirable for the Commission to place the generic name *Orthoceros* Brünnich, 1771, on the *Official List of Generic Names in Zoology* and establish as its type-species *Orthoceratites regularis* Schlotheim, 1820. Such procedure would, as you anticipated, eliminate the need for any action to be taken on the application which in 1930 I submitted to the Commission through the late Dr. C. W. Stiles." (b) *from Dr. Teichert's letter dated* 11*th March* 1947 : " Your interpretation of the position with regard to the name *Orthoceros* Brünnich, 1771, is quite correct. There is no doubt in my mind that Brünnich's names are valid names and therefore that no special action is required to give them official standing. The case of *Orthoceros* is a special one, because it is a genus without a type-species. The suggestion of Teichert & Miller to select *Orthoceratites regularis* Schlotheim, 1820, as the type-species still stands and it would be a good thing if the Commission finalised this choice."

13. No further advance was made with the case before the Commission met in Paris in July 1948, when it was decided (see paragraph 1 above) to render an *Opinion* stating that Brünnich's generic names in the *Zoologiae Fundamenta* (1771) are available names. The Commission next considered each of the new names involved. Mr. Hemming stated that Mr. Winckworth maintained his former view that *Orthoceros* ought to be suppressed under the Plenary Powers on the ground that Brünnich had not dealt with fossils in the work in question ; he drew attention to the contrary view expressed by Dr. Teichert and Dr. Miller and suggested that a decision should be deferred until the views of palaeontologists were more fully known. The Commission accepted this suggestion and asked Mr. Hemming to prepare a report on the proposed consultations as quickly as possible, for submission to the Commission (*Bull. zool. Nomencl.* **4** : 312–313).

14. Acting under the decision recorded in the previous paragraph, Mr. Hemming proceeded to consider (i) what was the position of the generic name *Orthoceros* Brünnich, 1771 under the Code as amended by the Paris (1948) Congress ? and (ii) was this position such as would meet the general wishes

of palaeontologists by promoting stability of nomenclature in nautiloid cephalopods ?

15. The first question finds its answer in the decision of the Commission at at its Paris meeting to recommend the addition of a provision to the *Règles* stating (*Bull. zool. Nomencl.* **4** : 159–160) "that where, prior to 1 January 1931, a generic name was published for a genus established (a) with an indication, definition or description, (b) with no nominal species distinctly referred to it, the first nominal species to be subsequently referred to it by the same or another author is to be deemed to have been an originally included species and that species automatically becomes the type-species of the genus in question ", and to cancel the decisions in Opinion 46, other than the decision just recorded. At a subsequent meeting (*ibid.* : 346) the Commission recommended the addition of words to that provision to cover the case in which, on the first occasion when any nominal species were referred to such a genus, two or more species were so referred. These recommendations were approved by the Section on Nomenclature and by the Congress. The effect of these decisions on the generic name *Orthoceros* Brünnich, 1771 is that its status is exactly what it had before been supposed to be by Mr. Hemming (see paragraph 12 above), namely that *Orthoceratites regularis* Schlotheim, 1820 was the type-species of that genus by monotypy through the designation by Ulrich, Foerste, Miller & Unklesbay in 1944.

16. The next point to be considered was whether the name *Orthoceros* was subject to automatic correction by reason of having been incorrectly formed. The Rev. Professor L. W. Grensted (Consulting Classical Adviser to the Commission) pointed out that the word " orthoceros ", like the word " rhinoceros ", is a correctly formed Greek adjective, and that ὀρθόκερως actually occurs as an adjective in classical Greek. He went on to say that the adjectival form ὀρθόκερως (orthoceros, straight-horned) and the substantive form ὀρθόκερας (orthoceras, straighthorn) are both equally correct from the point of view of Greek word-formation. The Latin words used as generic names are here formed by direct transliteration from the Greek. The word " orthocera ", on the other hand, is not a transliteration (for no such word is possible in Greek), but a latinisation, and must be treated as a purely Latin (or Neo-Latin) word from the grammatical point of view, as which it is perfectly acceptable as a generic name. It is therefore clear that the generic name *Orthoceros* Brünnich, 1771 is not subject to correction by reason of having been incorrectly formed in any way.

17. It must here be pointed out that, under the Law of Homonymy as amended at Copenhagen in 1953 (*Copenhagen Decisions zool. Nomencl.* : 78 paragraph 152), the generic names *Orthoceros, Orthoceras* and *Orthocera* are not homonyms of one another, but must be treated as separate available names.

18. In considering the second of the two questions referred to in paragraph 14, it is sufficient in the first instance to recall what has been said in earlier paragraphs of this report, namely that Dr. Teichert and Dr. Miller both held the view that the group of species formerly known by the generic name *Orthoceras*, should in future be known by the generic name *Orthoceros* Brünnich, 1771, and that that nominal genus should have as its type-species *Orthoceratites*

regularis Schlotheim, 1820 (paragraph 12 above): and that Dr. Stubblefield and the late Dr. Spath held that means should be found to preserve the generic name *Orthoceras* for use in cephalopods, since the name itself and morphological and systematic terms derived from it are deeply embedded not only in systematic literature, but also in general textbooks of zoology, palaeozoology and stratigraphy and in the current language of field-geologists. They added that, in their separate opinions, *Orthoceras* would continue to be used whatever the Commission might decide (paragraphs 7 and 8 above).

Part 2. The Present Situation

19. The examination of the *Orthoceros*/*Orthoceras* problem had reached the position outlined in the preceding paragraphs when, in November 1958, I reopened the file in the hope of bringing this long-standing case to a speedy conclusion. Three points immediately came to mind as calling for remark. The first of these is that there is nothing surprising in the apparent wide discrepancy of usage of the name *Orthoceras* for both nautiloid cephalopods and foraminifera. Linnaeus himself (*Syst. Nat.* ed. 10, 1758) had described foraminifera and cephalopods simultaneously under the generic name *Nautilus*, and the view that foraminifera were minute cephalopods prevailed at least until the 1840's (*e.g.* d'Orbigny, 1835–47, *Voyage dans l'Amérique méridional*). Fleming (1828, *A History of British Animals*) divided the genus *Orthocera* into two groups, corresponding approximately to recent foraminifera and fossil cephalopods respectively. Thus it is possible to claim that the intentions of an early author would be treated with equal respect, whether a cephalopod or a foraminiferan type species were used as a means for giving objective definition to any of the generic names *Orthocera*, *Orthoceras* or *Orthoceratites*.

20. The second point is that many hundreds, and possibly thousands of generic names in fossil cephalopods end in -ceras, to the point where any name with that termination is instinctively thought of by a palaeontologist or a field geologist as a cephalopod name. Thus, while the adoption of *Orthoceros* in place of *Orthoceras* would present little or no difficulty to specialist workers in fossil cephalopods, such a change is pre-eminently one of the kind which causes workers in applied palaeontology to regard "nomenclature" as a mystic practice beyond normal understanding and, as such, best ignored. It is, for all practical purposes, certain that such workers, who are the principal users of the name *Orthoceras* and of the words of various intention derived from it, would ignore any decision of the Commission to render the name *Orthoceras* unavailable in fossil cephalopods.

21. The third point is one that arises out of the last, and is connected with the arguments presented in paragraph 18 above by Dr. Stubblefield and the late Dr. Spath. The group of straight, elongate nautiloids generally known as *Orthoceras* are, and have for many decades been, considered as a primitive or even ancestral group, from which the far more numerous spirally coiled cephalopods are held to have descended. Thus, students of the evolutionary process are apt to find, in any work which refers to the evolution of cephalopods, that a fundamental position is allotted to a group denoted by the name

Orthoceras. From being quoted in this sort of context, the name has acquired wide and long-established currency in the teaching of palaeozoology and in books of a semi-popular character on the history of animal life ; in which there are few episodes more dramatic than the rise and fall of the Cephalopods.

22. It is thus clear that there are strong reasons of an empirical kind why the Commission should take the necessary steps to preserve the generic name *Orthoceras* as an available name in cephalopods. In view, however, of Dr. Miller's statement (see paragraph 2 above) that the name should properly be used in the foraminifera, I thought it necessary to enquire of workers in that group whether they recognised the name as the valid name of a genus of foraminifera or not. The replies received, from which quotations are given in Annexe 1 below, show that *Orthoceras* is not so regarded, and that workers in foraminifera would not only strongly oppose its adoption in their group, but would also, as palaeontologists with a wider interest in the subject, emphatically wish that name to be preserved in its accustomed sense. While these enquiries were proceeding, I examined personally the circumstances surrounding the generic name *Orthoceras* Bruguière, 1789 and found these to be different from what they had been stated in good faith to be by Dr. Miller. The facts are set out in the following paragraph.

23. The status of the name *Orthoceras* Bruguière, 1789 (see paragraph 2 above) under the Code is made clear by a chronological statement of the events connected with the name :

1789. Bruguière opened the volume of the *Ency. méth.* on " Vers, coquilles et polypiers " with a "Tableau systématique" setting out his classification and giving diagnoses of the genera and their species as far as the letter " C ", but he died (in 1799) before publishing any further part of the work, which was continued under the supervision of Lamarck.

1799. Lamarck (*Mém. Soc. Hist. nat. Paris* **1** : 80) proposed the genus *Orthocera* with *Nautilus raphanus* Linnaeus, 1758 as type species by monotypy. (The generic name was an invalid homonym of *Orthocera* Modeer, 1789.)

1816. A fascicle of plates of the *Tableau ency. méth.* including pls. 391–488 was issued under Lamarck's supervision. This included a sixteen-page " Liste des objets représentés dans les planches de cette livraison " (attributed to [Lamarck], [1816] by Sherborn & Woodward, 1906, *Ann. Mag. nat. Hist.* (7) **17** : 577) in which figs. 2 and 3 of pl. 465 are listed as "*Orthocera raphanus* " and "*Orthocera legumen* ". The two points to note in this reference are, first that the generic name used is *Orthocera* (i.e. of Lamarck, 1799), not *Orthoceras* ; and secondly, that the plates of this fascicle, with the accompanying " Liste ", were issued in advance of their related text.

1822. Lamarck redescribed his genus *Orthocera* in vol. 7 of his *Hist. nat. Anim. s. Vert.* and referred six species to it, including *Orthocera raphanus* (: 593) and *Orthocera legumen* (: 595). There is no doubt that Lamarck is here using his own generic name of 1799.

1824. Bory de St. Vincent (*Tabl. ency. méth.*) published a new set of explanations of the plates published in 1816, in which pl. 465, figs. 2 and 3 are explained as "*Orthocera raphanus* Lamk. VII. 593" and "*Orthocera legumen* Lamk. VII. 595". The references are to the *Hist. nat. Anim. s. Vert.* quoted above, and the genus concerned is not *Orthoceras* Bruguière, 1789, but *Orthocera* Lamarck, 1799.

24. It does not appear that Bruguière's genus *Orthoceras* was ever dealt with in the text of the work in which the name was first published. In volume 3 of the "Vers" in the *Ency. méth.*, written by G. P. Deshayes and published in 1832, the following appears on p. 627 under *Nodosaria* : "On ne peut trop savoir quelle a été l'opinion de Bruguière à l'égard de ce genre : parmi le petit nombre de genres qu'il a démembrés des Nautiles de Linné, il semble que ce seroit plutôt à celui qu'il a nommé Orthocère qu'il appartiendroit qu'à tout autre." The difficulty in interpreting this statement lies in the fact that the French vernacular word "Orthocère" was generally used as the equivalent of *Orthocera* rather than of *Orthoceras* ("Orthocérate"), but it appears that Deshayes considered *Orthoceras* Bruguière as representing a genus of foraminifera, whereas Dr. Cox, in his application relating to *Hippurites* (p. 000 below) considers that the description accompanying the name might well apply to a Rudistid lamellibranch, and Dr. Eames has remarked to me that that description could not possibly apply to any known species of foraminifera. Later (: 673), Deshayes remarks : "Il faut se souvenir enfin que, dans quelques méthodes, toutes ces choses si diverses, portant des noms à peu près semblables, [i.e. *Orthocera*, *Orthoceras*, *Orthoceratites*] sont confondues quelquefois dans un seul genre, et quelquefois dans une même famille : cette famille, pour augmenter la confusion sans doute, porte aussi le nom d'Orthocères ou d'Orthocérées. Pour éviter une telle confusion, nous adoptons complètement le genre Nodosaire de M. d'Orbigny ; nous adoptons également dans son entier le genre Orthocérate de M. Sowerby, nommé à tort Orthocère par M. d'Orbigny, et nous rejetons tout le reste comme nuisible à la science par las confusion extrême que cela y apporte." It is clear from these two passages that Deshayes regarded *Orthoceras* Bruguière as a *nomen dubium* and that he proposed to attribute that name to Sowerby, who had in fact used *Orthocera* for straight nautiloid cephalopods. It is also clear that Deshayes did not attribute any nominal species to Bruguière's genus.

25. The generic name *Orthoceras* was used, apparently as a new name and without citation of any earlier author, by the following : Batsch, A. I. G. C., 1791, *Sechs Kupfertafeln mit Conchylien des Seesandes*, in relation to fourteen named species of foraminifera ; Spalovsky, J. J. N. A., 1795, *Prodromus in Syst. nat. Hist. Test.* in connection with one named species of foraminifera ; Schrank, F. von P. von, 1796, *Samml. nat. phys. Aufsatz*, for a dipteran insect ; Perry, G., 1811, *Conch. nat. Hist. Shells*, in relation to a named foraminiferan and a doubtful organism ; Blainville, H. M. D. de, 1825, *Man. Malac.*, for two straight nautiloids and four foraminifera ; Deshayes, G. P., 1831, *Descr. Coquilles caract. Terrains*, for a straight nautiloid ; and Phillips, J., 1836, *Ill. Geol. Yorks.* for eighteen species of straight nautiloids. Subsequent nineteenth century authors all used the name for straight nautiloids and attributed the name to the pre-Linnean author Breyn, 1732, sometimes spelt Breynius. No reference has anywhere been found prior to that mentioned in the next

paragraph that could be construed as the attribution of any nominal species to *Orthoceras* Bruguière, 1789.

26. It has been explained in paragraphs 4 to 15 above how it was thought that *Orthoceros* Brünnich, 1771 could, by the designation of a suitable type-species, be used in place of *Orthoceras* auctorum, and how *Orthoceratites regularis* was so designated by Ulrich, Foerste, Miller & Unklesbay in 1944. This same treatment had, however, already been given to *Orthoceras* Bruguière, 1789 by Miller, Dunbar & Condra in 1933, although it had been rejected by Teichert & Miller (1936) on the ground that Schlotheim's species did not come under Bruguière's generic diagnosis in the terms of Opinion 46, in spite of the efforts made by Miller, Dunbar & Condra to show that that requirement was in fact met. There is no doubt that, under existing rules, the action taken by those authors in 1933 is valid and definitive, for they were the first authors to refer any nominal species to *Orthoceras* Bruguière, 1789, and the fact that only a single species (*Orthoceratites regularis* Schlotheim, 1820) was so referred makes that species automatically the type-species, even if the authors concerned had not expressly stated this to be the case. *Orthoceros* Brünnich, 1771, first defined in terms of a nominal species by Ulrich and others in 1944, is thus a senior objective synonym of *Orthoceras* Bruguière, 1789, and it is suggested that the Commission should use its Plenary Powers to suppress the former in the interests of conserving *Orthoceras* in its accustomed sense.

27. The statements made in the preceding paragraph are made on the basis of an extensive search of the literature and are true so far as is known. Nevertheless, the literature on orthocone nautiloids is extensive and world-wide, and it is possible that some work may have been overlooked in which species were definitely referred to *Orthoceras* Bruguière, 1789 prior to the work of Miller, Dunbar & Condra, 1933 referred to. In order to place the interpretation of *Orthoceras* on a finally secure basis, therefore, the Commission is asked to set aside, by using its Plenary Powers, all designations of a type-species for that genus made prior to the ruling now requested and, having done so, to designate *Orthoceratites regularis* Schlotheim, 1820 as the type species.

28. Dr. Teichert has kindly drawn my attention to a recent paper in Russian by S. G. Balashov (1956, *Ezhegodnik Vsesoyusnogo Obshsch.* **15** : 223–241). No full translation of the extensive historical discussion in this paper is at present available, but it seems clear that Balashov concludes that *Orthoceros* Brünnich, 1771 is to be treated as a synonym of, and emended to, *Orthoceras*, and that the latter name is to be given priority as from 1771. If this is a correct reading of the work, then *Orthoceras* Balashov, 1956 is an invalid emendation of *Orthoceros* Brünnich, 1771.

29. With regard to the type-species of *Orthoceras*, it may be pointed out that the taxonomic concept represented by the name, which at one time included all Palaeozoic straight nautiloids, has been progressively restricted by the establishment of other nominal genera for parts of the broader idea. It is therefore important that, if the generic name is to be stabilised by reference to a cephalopod species, the use of those other generic names should not be disturbed. Owing to the comparatively recent origin of the discussion of the history and status of the name, this aspect of the question is well covered, for

Orthoceratites regularis Schlotheim, 1820, which, as shown in paragraph 26 above, is the type-species of the genus under the Rules, is considered by specialists in the group to be typical of the genus in the restricted sense. This is shown by the fact that it was designated as the type-species not only by Miller, Dunbar & Condra, 1933, but also by Ulrich, Foerste, Miller & Unklesbay, 1944 (for *Orthoceros*) and by Balashov, 1956. It is clear also that Teichert & Miller, 1936 regarded the species in the same light. Moreover, the species was fully described and illustrated by Troedsson (1931, *Lunds Univ. Årsskr.* N.F. Avd. 2, 28) who selected a lectotype from Schlotheim's collection. No special action is therefore needed to provide *Orthoceras*, if accepted as a cephalopod genus, with a type-species in harmony both with current usage and with the Rules.

30. At the family-group level, it is found that names have been founded both on *Orthoceras* and on *Orthoceros*. It is proposed to disregard the French vernacular word " Les Orthocérées " on account of the doubtful uses of this name for a suprageneric unit, and to accept in its place the undoubted family-name ORTHOCERATIDAE M^cCoy, 1844 (*Synopsis carb. Fossils Ireland* : 6) which, as Dr. W. H. C. Ramsbottom (Geological Survey & Museum, London) kindly informs me, is the oldest family-group name based on *Orthoceras* and expressly used to designate a nominal family of nautiloid cephalopods. It is therefore proposed that this name be placed on the Official List. The only family-group name based on *Orthoceros* is ORTHOCEROTIDAE Teichert & Miller, 1936, and if the proposal made in paragraph 26 above to suppress *Orthoceros* under the Plenary Powers is accepted, then the family-name based on that generic name will be automatically rejected and can be placed on the Official Index.

31. At this point I took up the examination of a reference in Teichert & Miller (1936) to the fact that the generic name *Orthoceratites* Lamarck, 1799 was apparently identical with the non-binominal *Hippurites* Picot de la Peyrouse, 1781, and possibly also with the widely-used available name *Hippurites* Lamarck, 1801. This question was entrusted to Dr. L. R. Cox (British Museum (Natural History), London), who found that this was indeed the case. He has kindly prepared an application (pp. 25–26 below) for the suppression under the Plenary Powers of *Orthoceratites* Lamarck, 1799 so as to conserve *Hippurites* Lamarck, 1801.

32. In order to ascertain the position of the names mentioned in Foraminifera, I consulted Dr. F. E. Eames and Dr. F. T. Banner (British Petroleum Co. Ltd., Sunbury-on-Thames, England) and Dr. A. H. Smout (Iraq Petroleum Co. Ltd., London). All were of the opinion that the names *Orthocera* and *Orthoceras* constituted potential threats to the stability of generic names in general use and that steps should at once be taken to remove this threat. Extracts from their letters are given in Annexe 1 below.

33. The generic name *Orthocera* was first published as an available name under the Code by Modeer, 1789 (*Illustr. quaedam in R. D. Ambr. Soldani opus egreg. Saggio Orittograffico dictum*). This work was first published as a part of Soldani's *Testaceogr. ac Zoophytogr. parvae et microsc. tomus primus*, which is a non-binominal work. Modeer's contribution, however, is strictly binominal and was re-issued in 1791 in *Nova Acta Acad. Caes. Leop.-Carol.* 8 (Appendix) :

85–94. The following species were expressly and unambiguously referred to the genus by Modeer: *Orthocera crispata* Modeer, *Nautilus orbiculus* Forskål, 1785, *Nautilus raphanistrum* Linnaeus, 1758, *Nautilus obliquus* Linnaeus, 1758, *Orthocera armilla* Modeer, *Nautilus radicula* Linnaeus, 1758, *Nautilus raphanus* Linnaeus, 1758, *Nautilus legumen* Linnaeus, 1758 and *Orthocera pupa* Modeer. No type-species was designated or indicated and an additional species cited as " *Nautilus rapistrum* Linnaeus . . . mihi *Orthocera* vel *Arthrocena rapistrum* " is not eligible for selection as type-species since it was referred to the genus only with doubt. (Modeer's work consists of comments on various specimens figured by Soldani in his *Saggio Orittograffico* rather than of a systematic description of new species. The specific name " *rapistrum* " is not known in Linnaeus's works.) Galloway (1933, *Man. Foram.* : 453) selected *Orthocera sipunculus* Modeer, 1796, but this is invalid because the species was not among those originally included in the genus. Dr. Banner informs me (*in lit.* 27 November 1958) that no valid type-selection is known for *Orthocera* Modeer, 1789.

34. It would clearly be desirable to dispose of the unwanted generic name *Orthocera* Modeer, 1789, by finding out to what genera the species referred by him to that genus are now attributed and by safeguarding those generic names from any threat to which they are liable so long as *Orthocera* remains an available name by placing them on the Official List. However, it appears from correspondence with Dr. Banner and Dr. Smout that certain of the species in question have in the past been referred to genera whose taxonomic validity is not unequivocal, and that two or more generic names may be currently in use for a taxon containing one of Modeer's species. Moreover, it is by no means easy in the present state of knowledge to find out whether valid type-designations have been made for these genera, nor to be sure that the strict application of the Rules in these cases would meet with general approval. This situation, while regrettable, demands lengthy investigation and much help from specialists in foraminifera, and it seems better, therefore, not to delay the seeking of a permanent settlement of the main *Orthoceras* problem while the collateral questions are being thoroughly explored. The only other method whereby the generic name *Orthocera* Modeer, 1789, can be effectively disposed of is by finding a nominal genus of undisputed validity of which the type-species under the Rules is (a) one of the species placed in *Orthocera* by Modeer in 1789, and (b) in harmony with the accustomed use of the generic name in question. *Orthocera* Modeer, 1789 can thus be rendered a senior objective synonym of a generic name in general current use and, as such, amenable to suppression for priority but not for homonymy through the use of the Plenary Powers.

35. A nominal genus suitable to this purpose exists in *Nodosaria* [Lamarck], [1816] (*Tabl. ency. méth.*, 16-page " Liste des objets " : 13). This nominal genus was proposed with two included species, namely, *Nautilus radicula* Linnaeus, 1758 and *Nodosaria clavulus* Lamarck. *Nautilus radicula* Linnaeus, 1758 was designated as the type-species by Children in 1823 (*Lamarck's genera of shells translated from the French* : 113) and the genus, which is and always has been universally employed, is used in this sense. The following species

included in *Orthocera* Modeer, 1789, are currently placed in *Nodosaria* : *Orthocera armilla* Modeer, 1789 (by some authors referred to *Dentalina* d'Orbigny, 1826) ; *Nautilus obliquus* Linnaeus, 1758 (with some doubt) ; *Nautilus radicula* Linnaeus, 1758 ; and *Nautilus raphanistrum* Linnaeus, 1758. I therefore now designate *Nautilus radicula* Linnaeus, 1758 as the type-species of *Orthocera* Modeer, 1789 and request the Commission to use its Plenary Powers to suppress that generic name for the purposes of the Law of Priority but not for those of the Law of Homonymy.

36. Modeer used his own generic name *Orthocera* in 1791, in the re-issue of his 1789 work already mentioned, and in 1796 (*K. Vetensk.-Akad. nya Handl.* **17** : 63) for foraminifera and for straight nautiloids. The name was also used by Lamarck, 1799 (*Mém. Soc. Hist. nat. Paris* **1** : 80), for foraminifera ; J. Sowerby, 1812 (*Min. Conch.* **1** : 127) for straight nautiloids ; Fleming, 1815 (*Ann. Phil.* **5** : 201–206) for nautiloid cephalopods and one species of foraminifera ; and Blainville, 1828 (*Dict. Sci. nat.* **36** : 485) for foraminifera. No usage of *Orthocera* later than 1828 (Blainville, *op. cit.* ; Fleming, *Hist. brit. Anim.*) has been traced. Uses of the generic name *Orthoceras* in foraminifera have been listed in paragraph 25 above.

37. The Rules do not give precise guidance as to the treatment of an existing generic name when this is cited without reference to any previous author. In the vast majority of such cases there is no reasonable doubt that the name is being used in its existing sense, and it would not be necessary to consider every use of, for example, *Homo* or *Musca* as the homonymous proposal of a new generic name merely because no explicit reference was made to " Linnaeus, 1758 ". Similarly, it is generally obvious when a generic name is being used as an invalid homonym, for this will usually take place in a group far removed taxonomically from that in which the name is valid. The names involved in the present case, however, do not present themselves in so clear a light. This is partly due to the fact that both *Orthoceras* and *Orthocera* had come into current use in pre-Linnean times, so that their meaning was clear, in a generalised way, to any late-eighteenth-century naturalist whether they were referred to any of several previous authors or not. In the case of *Orthoceras*, for example, there is no evidence that Batsch (1791) knew of the existence of this name in Bruguière's work of 1789, for he made no reference to it, and the species which he referred to the genus have no relevance to the generic description provided by Bruguière. Neither Spalovsky (1795) nor Perry (1811), who both used *Orthocera* for foraminifera, made any reference to Batsch, nor did they include any of the species named by him in the genus. Schrank's usage of the name for an insect in 1796 is clearly homonymous in the ordinary sense of the word. Blainville (1825) and Deshayes (1831) used the name in different senses from each other and from any previous author, and Phillips (1836) clearly considered it to be in part equivalent to *Orthocera* Fleming (1815, 1828), for he included some of Fleming's species of *Orthocera* in *Orthoceras*. In order to prevent some later author from challenging a ruling on the lines here proposed for *Orthoceras* Bruguière, 1789, on the grounds that these later uses of the name had been wrongly regarded as usages of Bruguière's generic name, the Commission is asked to rule that those uses are invalid by reason

of being junior homonyms of *Orthoceras* Bruguière, 1789. This course will not, however, be necessary in regard to the uses of *Orthocera* after Modeer, 1789, because those names will automatically be rendered invalid if the proposal made in paragraph 35 above to use the Plenary Powers to suppress that name for priority but not for homonymy is accepted.

38. The last point calling for attention in the present problem concerns the alleged generic names *Orthocerata* Soldani, 1780 and *Orthoceratia* Soldani, 1780 (*Saggio Oritt.* : 107) listed by Sherborn in his *Index gen. sp. Foram.*, 1896 : 287–289. These alleged names were used as Latin plural nouns by a non-binominal author in a non-binominal work, and as such have no status in zoological nomenclature.

39. The action which the International Commission on Zoological Nomenclature is therefore asked to take is as follows :—

(1) use its Plenary Powers :
  (a) to set aside all designations of a type-species for the nominal genus *Orthoceras* Bruguière, 1789 made prior to the ruling now asked for and, having done so, to designate *Orthoceratites regularis* Schlotheim, 1820 as the type-species of that genus ;
  (b) to suppress the following generic names for the purposes of the Law of Priority but not for those of the Law of Homonymy :
    (i) *Orthoceros* Brünnich, 1771 (an unused senior objective synonym of *Orthoceras* Bruguière, 1789) ;
    (ii) *Orthoceras* Balashov, 1956 (an invalid emendation of *Orthoceros* Brünnich, 1771) ;
    (iii) *Orthocera* Modeer, 1789 (an unused senior objective synonym of *Nodosaria* [Lamarck], [1816]) ;

(2) rule that the following generic names are invalid by reason of being junior homonyms of *Orthoceras* Bruguière, 1789 : (a) *Orthoceras* Batsch, 1791 ; (b) *Orthoceras* Spalovsky, 1795 ; (c) *Orthoceras* Schrank, 1796 ; (d) *Orthoceras* Perry, 1811 ; (e) *Orthoceras* Blainville, 1825 ; (f) *Orthoceras* Deshayes, 1831 ; (g) *Orthoceras* Phillips, 1836 ;

(3) place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Orthoceras* Bruguière, 1789 (gender : neuter), type-species, by designation under the Plenary Powers in (1)(a) above, *Orthoceratites regularis* Schlotheim, 1820 (Class Cephalopoda, Order Nautiloidea) ;
  (b) *Nodosaria* [Lamarck], [1816] (gender : feminine), type-species, by selection by Children, 1823, *Nautilus radicula* Linnaeus, 1758 (Class Rhizopoda, Order Foraminifera) ;

(4) place the following specific names on the Official List of Specific Names in Zoology :
  (a) *regularis* Schlotheim, 1820, as published in the binomen *Orthoceratites regularis* (type-species, by designation under the Plenary Powers in (1)(a) above of *Orthoceras* Bruguière, 1789) ;
  (b) *radicula* Linnaeus, 1758, as published in the binomen *Nautilus*

radicula (type-species, by selection by Children, 1823, of *Nodosaria* [Lamarck], [1816]);

(5) place the family name ORTHOCERATIDAE McCoy, 1844 (type-genus: *Orthoceras* Bruguière, 1789) on the Official List of Family-Group Names in Zoology;

(6) place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
  (a) the three generic names suppressed under the Plenary Powers in (1)(b) above;
  (b) the seven generic names declared in (2) above to be invalid junior homonyms of *Orthoceras* Bruguière, 1789;
  (c) the following junior homonyms of *Orthocera* Modeer, 1789: (i) *Orthocera* Lamarck, 1799; (ii) *Orthocera* J. Sowerby, 1812; (iii) *Orthocera* Fleming, 1815; (iv) *Orthocera* Blainville, 1828;
  (d) the following reputed generic names published in a non-binominal work by a non-binominal author: (i) *Orthocerata* Soldani, 1780; (ii) *Orthoceratia* Soldani, 1780;

(7) place the family-name ORTHOCEROTIDAE Teichert & Miller, 1936 (rendered invalid by the suppression under the Plenary Powers in (1)(b) above of *Orthoceros* Brünnich, 1771) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

ANNEXE 1

Extracts from letters received

Dr. F. T. Banner, 27 *November* 1958.—The name *Orthocera* does not seem to have been applied to any Foraminifera since the middle of the nineteenth century . . . It seems highly probable that (a) no type-species has been validly designated for *Orthocera* Modeer, 1789, and this genus is still potentially valid and a potential nuisance unless suppressed; (b) *Orthocera* Lamarck is a homonym of *Orthocera* Modeer; (c) *Orthoceras* has not been used validly for any group of Foraminifera, and (d) there is a strong case for the suppression of *Orthocera* on the grounds of stability.

Dr. F. E. Eames, 9 *January* 1959.—Although *Orthoceras* was used as a generic name for foraminifera in the eighteenth century, it has for many years been used for long, straight, nautiloid cephalopods, and in this sense it has acquired, and still enjoys, wide usage in stratigraphical palaeontology and field geology, and in the teaching of palaeontology and evolution. As a specialist in foraminifera, I strongly oppose any attempt to transfer the name to that group; and as being concerned in my work with fossils of many groups, I use the name in its accustomed sense not only from force of teaching and habit, but also because I know that my colleagues will immediately understand what I mean by it. I therefore wish to support the proposal to conserve the generic name *Orthoceras* in the sense in which it has been used during the last hundred years or more.

Dr. Curt Teichert, 19 *January* 1959.—I was very glad to have my attention called to the modification of Opinion 46. This, if applied retroactively, as I suppose it must be, invalidates entirely all arguments presented by Miller and myself in 1936 against the possibility of selecting a cephalopod as type-species of *Orthoceras* Bruguière . . . I have reviewed again all the relevant literature from the 1920's and early 1930's and I find that Miller, Dunbar & Condra (1933 : 31) very definitely and unambiguously designated *Orthoceratites regularis* Schlotheim as the genotype of *Orthoceras* Bruguière.

Dr. Teichert, 27 January 1959.—It looks to me now as if final settlement can only be achieved by appeal to the Commission. I would favour an appeal to the Commission to uphold Miller, Dunbar & Condra's selection of *Orthoceratites regularis* as type-species of *Orthoceras* Bruguière. Confirmation of this choice is now possible since the part of Opinion 46 requiring that the type-species must come " under the description as originally published " has been rescinded. As far as I am aware no type-species for *Orthoceras* Bruguière had been selected prior to 1933 nor had it ever been stated that Bruguière was technically the author of that genus. As late as the late 1920's it was customary to credit *Orthoceras* to Breyn, a non-Linnean author. It may, therefore, be assumed that references of *Orthoceras* prior to the publication of Miller, Dunbar & Condra's paper, other than those concerned with *Orthoceratites regularis*, may be regarded as junior homonyms of Bruguière's genus. If you concur in this opinion and would like to prepare a statement of the case for submission to the I.C.Z.N., I shall be very glad to support the application. I am definitely not in favour of emending *Orthoceros* Brünnich and I fully concur in the reasons stated by you against such action [see paragraph 16 above].

Dr. R. H. Cummings (*Department of Geology, Glasgow University*), 20 *March* 1959.—I have discussed this matter with Professor George and Dr. Weir. Both feel as strongly as I do on having the generic name *Orthoceras* placed on the Official List and reserved for the Cephalopoda.

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAME *ORTHOCERATITES* LAMARCK, 1799, SO AS TO CONSERVE THE GENERIC NAME *HIPPURITES* LAMARCK, 1801 (CLASS PELECYPODA). Z.N.(S.) 1395

By L. R. Cox (*British Museum* (*Natural History*), *London*)

The generic name *Hippurites* was first published by J. B. de Lamarck (1801, *Système des animaux sans vertèbres* : 104) with citation of a single species *H. bioculata* Lamarck, the identity of which was established by references to figures published by P. Picot de la Peyrouse in a non-binominal work (1781, *Description de plusieurs nouvelles espèces d'Orthocératites et d'Ostracites*), where a number of species of the genus were described under " *Orthoceratites* ". The name *Hippurites* has been in continuous use ever since, and no species other than *H. bioculata* has probably ever been cited as its type ; but it should be noted that many authors, with whom the present applicant is in agreement, have differed from Lamarck in considering *Hippurites* to be a word of masculine gender*. The genus is a very important one and is the best known of the group of aberrant sessile pelecypods termed the Rudists ; it is the type genus of the family HIPPURITIDAE Gray, 1848. It is highly desirable that it should be placed on the Official List of Generic Names in Zoology.

2. The present application arises from the existence of two prior generic names, both apparently based on specimens of the same zoological genus as the type-species of *Hippurites* ; these were published with indications sufficient to establish them as available although in both cases without any mention of a nominal species. The procedure to adopt in determining the species to accept as type-species in such circumstances was decided at the Paris Congress in 1948 (*Bull. zool. Nomencl.* **4** : 160, 346). A search must be made through subsequent literature, and the type-species must be the first valid nominal species to be associated with the generic name (or one of the first when two or more were so associated simultaneously), provided that the genus was definitely attributed to its original author. It should be noted that it is not essential for the type-species, so determined, to agree with the original generic diagnosis, even though it was this diagnosis that served as the indication validating the generic name.

3. The two earlier generic names applied to the taxonomic genus to which Lamarck assigned the name *Hippurites* are as follows :—

4. *Orthoceras* J. G. Bruguière, 1789 (*Encyclopédie méthodique* [Vers], **1** : xvi). No nominal species was included, but a generic definition was given, reading as follows : " Coquille conique, composée de cloisons transverses, & d'une gouttière sur un des côtés, l'ouverture fermée par un opercule ". This diagnosis seems to refer to a hippurite. The literature has been searched, but no instance has been found of the reference of any nominal species of hippurite, or of any pelecypod, to *Orthoceras* Bruguière. No nominal species of any group appears

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* The Commission adopted in March 1958 Declaration 40 ruling that generic names having the terminations *-ides*, *-ites*, and *-oides* are to be treated as masculine in gender. (See *Ops. Decls. int. Comm. zool. Nomencl.* **19** : xix–xxviii, published 15th October 1958.)

to have been referred to the genus *Orthoceras*, attributed to Bruguière, until 1933 when Miller, Dunbar & Condra (*Bull. Nebraska geol. Surv.* (2) **9**) included in it the Palaeozoic cephalopod species originally described by Schlotheim in 1820 as *Orthoceratites regularis*. The stabilisation of *Orthoceras* Bruguière, 1789 in this sense is advocated by the Assistant Secretary in his accompanying report (: 9–24 above).

5. *Orthoceratites* J. B. de Lamarck, 1799 (*Mém. Soc. Hist. nat. Paris* **1** : 81). No nominal species was included in this genus, but a generic diagnosis was given, reading as follows : " Coq. conique, droite ou arquée, munie intérieurement de cloisons transverses, et de deux arêtes longitudinales obtuses, convergentes ; la dernière loge fermée par un opercule ". This diagnosis also appears to refer to a hippurite. So far as I know, no nominal species has yet been referred to *Orthoceratites* by any author who has attributed that genus to Lamarck. The name could, therefore even now be made an objective synonym of some generic name in current use by proceeding to include in it the type-species of such a genus, which would become its monotype by the Paris decision already mentioned. In any case, the status of generic names for fossils derived from a previously published generic name by the addition of the termination "*-ites*", and published as part of a binomen, was determined at the Copenhagen Congress (1953, *Copenhagen Decisions* : 65) ; and the decision then made that such names should have no status could be held to apply to *Orthoceratites* as soon as it was published as part of a binomen. The direct suppression of the generic name by the International Commission would, however, be preferable to its formal publication as part of a binomen, with the deliberate intention of producing a situation which would render it invalid.

6. Application is, therefore, made that the International Commission on Zoological Nomenclature :

(1) use its Plenary Powers to suppress the generic name *Orthoceratites* Lamarck, 1799 for the purposes of the Law of Priority but not for those of the Law of Homonymy, in the interests of stability and uniformity of nomenclature ;

(2) place the generic name *Hippurites* Lamarck, 1801 (gender : masculine), type-species, by monotypy : *Hippurites bioculata* Lamarck, 1801, on the Official List of Generic Names in Zoology ;

(3) place the specific name *bioculata* Lamarck, 1801, as published in the combination *Hippurites bioculata* (type-species of *Hippurites* Lamarck, 1801) on the Official List of Specific Names in Zoology ;

(4) place the generic name *Orthoceratites* Lamarck, 1799 (as suppressed under the Plenary Powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) place the family-group name HIPPURITIDAE Gray, 1848 (type-genus : *Hippurites* Lamarck, 1801) on the Official List of Family-Group Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAMES *PROTHECHUS* RONDANI, 1856, AND *ALLONEURA* RONDANI, 1856, FOR THE PURPOSE OF VALIDATING THE GENERIC NAMES *VERRALLIA* MIK, 1899, AND *TOMOSVARYELLA* ACZÉL, 1939 (CLASS INSECTA, ORDER DIPTERA). Z.N.(S.) 230

By D. Elmo Hardy (*University of Hawaii, Honolulu, Hawaii*)

The present application is concerned with the names of two genera based on misidentified type species (*Prothechus* and *Alloneura* Rondani, 1856). In my " Revision of the Nearctic Dorilaidae " (1943, *Univ. Kansas Sci. Bull.* **19** : 1–231) and in " Nomenclature notes on the family Dorilaidae " (1946, *J. Kansas ent. Soc.* **19** : 135–137) I attempted to avoid confusion by accepting the named rather than the described species as the type-species of each of these genera, in accordance with the principles laid down in Opinions 65 and 168. Now, however, under the procedure adopted at the Paris (1948) Congress (*Bull. zool. Nomencl.* **4** : 158–159), the Commission is bound to consider such cases and to render whatever decision is best calculated to promote stability in nomenclature. In my view, this object will be best served in the present case if the Commission uses its Plenary Powers to suppress the two generic names mentioned on the grounds that they are *nomina dubia*, and to validate the two names (*Verrallia* Mik, 1899 and *Tömösváryella* Aczél, 1939) which are in general use for the taxonomic genera concerned.

2. The type-species, by original designation, of *Prothechus* Rondani, 1856 (*Dipt. Ital. Prodr.* **1** : 39) is *Cephalops aucta* Fallén, 1817 (*Dipt. suec.* **1** (Syrphici) (6) : 61). The species actually intended by Rondani, however, while certainly not identical with the species cited by name, is of doubtful identity. It was evidently a species of the subfamily DORILAINAE having an appendiculate fourth vein in the wing (vein M_{1-2}), and probably one of the two known European species of the genus *Cephalosphaera* Enderlein, 1936 (*Dipt. Thierw. Mitteleurop.* **6** : 3). There is, however, no way of ascertaining which, if either, of these two species Rondani may have described. The type-species of *Cephalosphaera*, by original designation, is *Pipunculus furcatus* Egger, 1860 (*Verh. zool.-bot. Ges. Wien* **10** : 347), and this generic name should now be placed on the Official List of Generic Names in Zoology.

3. Becker (1897, *Berl. ent. Ztg.* **42** : 93) interpreted *Prothechus* in terms of the true *Cephalops aucta* Fallén. On the discovery of Rondani's misidentification, Mik (1899, *Wien. ent. Ztg.* **18** : 137) proposed *Verrallia* as a replacement name for *Prothechus* Rondani as interpreted by Becker and designated *Cephalops aucta* Fallén as its type-species. Since that time, *Verrallia* has come into general use for the genus in question, in the works of Dr. Aczél and Mr. J. E. Collin, and in Pius Sack's *Die Fliegen der paläarkt. Region. Prothechus*, on the other hand, has only been used by me in the two works cited in paragraph 1 above and in " The African Dorilaidae " (1949, *Inst. roy. Sci. nat. Belg.* (2) **36** : 3–4). I now wish to reverse my stand in this matter, since I feel that uniformity will be better served if *Prothechus* Rondani is suppressed as a *nomen dubium*, and if *Verrallia* is validated.

4. The type-species, by original designation, of *Alloneura* Rondani, 1856, (*Dipt. Ital. Prodr.* **1** : 140) is *Pipunculus flavipes* Meigen, 1824 (*Syst. Beschr. zweifl. Ins.* **4** : 20), so that *Alloneura* was long considered to be a synonym of *Dorilas* Meigen, 1800 (*Nouv. Class. Mouches* : 31). From Rondani's description of the species, however, it is clear that the material before him did not belong to *Pipunculus flavipes* Meigen, but to that group of the subfamily DORILAINAE of which the species have no stigma in the wing. This group has since been divided into four genera by Aczél (1939, 1940) and Hardy (1943) and it is not possible to say to which of these genera the species described by Rondani belonged. Collin (1945, *Ent. mon. Mag.* **81** : 3–4) put forward the view that the species misidentified by Rondani with *Pipunculus flavipes* was a species congeneric with *Pipunculus sylvaticus* Meigen, 1824 (*op. cit.* **4** : 20), the type species, by original designation, of *Tömösváryella* Aczél, 1939 (*Zool. Anz.* **125** : 20, 22). He accordingly sank *Tömösváryella* as a synonym of *Alloneura* and gave the name *Alloneura rondanii* Collin to the type-species of the latter. Neither Dr. Aczél nor I has followed this procedure, since we regard *Alloneura* as a *nomen dubium* based on an unrecognisable misidentified type-species. The taxonomic genus in question is very widely known under the name *Tömösváryella* and the acceptance of this name would cause much less confusion than the adoption of *Alloneura*, which has been applied to it only once, namely by Collin (1945) in the paper noted above.

5. For the reasons given above, I am of the opinion that greater confusion than uniformity would result if the nominal genera *Prothechus* Rondani, 1856 and *Alloneura* Rondani, 1856 were to be accepted, either on the basis that their type species are the nominal species actually designated as such by Rondani, or on the basis that their type-species are the species which Rondani is alleged to have had before him. I therefore request the International Commission on Zoological Nomenclature :—

(1) to use its Plenary Powers to suppress the following generic names for the purposes of the Law of Priority but not for those of the Law of Homonymy on the ground that the genera so named are based on unrecognisable, misidentified type-species: (a) *Prothechus* Rondani, 1856 ; (b) *Alloneura* Rondani, 1856;

(2) to place the following generic names on the Official List of Generic Names in Zoology :

   (a) *Verrallia* Mik, 1899 (gender : feminine), type-species, by original designation, *Cephalops aucta* Fallén, 1817 ;

   (b) *Cephalosphaera* Enderlein, 1936 (gender : feminine), type-species, by original designation, *Pipunculus furcatus* Egger, 1860 ;

   (c) *Tömösváryella** Aczél, 1939 (gender: feminine) type-species, by original designation, *Pipunculus sylvaticus* Meigen, 1824 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :

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* NOTE.—This name is printed with its diacritic marks in accordance with the rules in force at the time of going to press. The London (1958) Congress decided that diacritic marks are in future to be omitted from zoological names but this rule will not come into force until it is published. R.V.M. 10.iv.59.

  - (a) *aucta* Fallén, 1817, as published in the binomen *Cephalops aucta* (type-species of *Verrallia* Mik, 1899);
  - (b) *furcatus* Egger, 1860, as published in the binomen *Pipunculus furcatus* (type-species of *Cephalosphaera* Enderlein, 1936);
  - (c) *sylvaticus* Meigen, 1824, as published in the binomen *Pipunculus sylvaticus* (type-species of *Tömösváryella* Aczél, 1939);

(4) to place the generic names *Prothechus* Rondani, 1856, and *Alloneura* Rondani, 1856, as suppressed under the Plenary Powers in (1) above, on the Official Index of Rejected and Invalid Generic Names in Zoology.

PROPOSED ADDITION TO THE OFFICAL LIST OF GENERIC NAMES IN ZOOLOGY OF THE GENERIC NAME *DICTYOCONUS* BLANCKENHORN, 1900 (CLASS RHIZOPODA, ORDER FORAMINIFERA)

Z.N.(S.) 316

By Don L. Frizzell (*Missouri School of Mines, Rolla, Missouri, U.S.A.*)

The Upper Cretaceous and Eocene foraminiferal genus *Dictyoconus* Blanckenhorn, 1900 is very widely known and has considerable stratigraphical significance. Although the name was spelt in two different ways when it was first proposed, there is no confusion, so far as I am aware, in the current spelling of the name. It is desirable, however, for the unused original spelling (which has in fact become the invalid spelling) to be definitely rejected and for the valid original spelling to be placed on the Official List. The opportunity is provided at the same time to correct certain statements that have been made with regard to the type-species of the genus. The information presented here has already been published in *J. Paleont.* **22** : 370, 1948.

2. The generic name *Dictyoconus* was introduced without description on p. 419 of Blanckenhorn's paper (*Z. deutsch. geol. Ges.* **52** : 403–479). The spelling *Dictyoconos* was used on p. 432 and in the formal description of the genus (: 434) and in six later passages (: 434–436). H. Douvillé (1901, *Bull. Soc. géol. France* (4) **1** : 156) was the first subsequent user of the name and chose *Dictyoconus* ("Il faut donc adopter le nom nouveau de *Dictyoconos* (ou mieux *Dictyoconus*) proposé par M. Blanckenhorn"). Subsequent authors have, so far as I can determine, unanimously accepted the spelling chosen by Douvillé.

3. The genus was established with two originally included species, *Patellina egyptiensis* Chapman, 1900 (*Geol. Mag.* (4) **7** : 11–12, pl. 2, figs. 1–3) and *Dictyoconus coralloides* Blanckenhorn, although other species not cited by name were recognised as belonging to the genus. Woodring, 1924 (Geol. Republic Haiti, *Geol. Surv. Rep. Haiti*, Appendix 1 : 608–610), cited by Galloway, 1933 (*Manual of Foram.* : 206) was in error in citing *Patellina egyptiensis* as type-species by monotypy, but the same species was unequivocally designated as type-species by Cushman, 1933 (*Sp. Publ. Cushman Lab. Foram. Res.* **4** : 125), and was also so cited by A. Morley Davies (1935, *Tertiary Faunas* **1** : 11). Ellis & Messina, 1940 (Catalogue of Foraminifera) wrongly stated that no type-species had been designated.

4. In order finally to stabilise the name of this well-known genus of Foraminifera, the International Commission on Zoological Nomenclature is therefore asked :

(1) to place the generic name *Dictyoconus* Blanckenhorn, 1900 (gender : masculine), type-species, by subsequent designation by Cushman, 1933, *Patellina egyptiensis* Chapman, 1900 on the Official List of Generic Names in Zoology as the Valid Original Spelling of the generic name in question ;

(2) to place the specific name *egyptiensis* Chapman, 1900, as published in the binomen *Patellina egyptiensis* (type-species, by selection by Cushman, 1933, of *Dictyoconus* Blanckenhorn, 1900) on the Official List of Specific Names in Zoology ;

(3) to place the generic name *Dictyoconos* Blanckenhorn, 1900 (an Invalid Original Spelling of *Dictyoconus* Blanckenhorn, 1900) on the Official Index of Rejected and Invalid Generic Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE NOMINAL GENUS *BERAEA* STEPHENS, 1833, IN HARMONY WITH CURRENT USE (CLASS INSECTA, ORDER TRICHOPTERA). Z.N.(S.) 395

By D. E. Kimmins (*British Museum* (*Natural History*), *London*)

Stephens (1833 ; *Nomen. Brit. Ins.* ed. 2 : 118) established the genus *Beraea* for eight species (five of which, being at that time known only by manuscript names, do not affect this discussion), the three species from which the type must be chosen being *Phryganea pusillus* Fabricius, 1781, *P. funerea* Fourcroy, 1785 and *P. pygmaea* Fabricius, 1798. Three years later, Stephens (*Ill. Brit. Ent., Mand.* **6** : 158) gave a diagnosis of his genus, including in it *Beraea albipes* Stephens, 1836, *B. pygmaea* (Fabricius, 1798) and *B. marshamella* Stephens, 1836. In 1839 we have the first type citation, that of Westwood (*Introd. mod. Classif. Ins., Gen. Syn.* **2** : 50), who selected *Phryganea pygmaea* Fabricius.

2. In 1878, McLachlan (*Rev. Syn. Trich. Eur.* : 493) expressed doubt as to the identity of *pygmaea* Fabricius, placing it with a query under *Beraea pullata* (Curtis, 1834). On p. 495 he states that the examples of *Beraea pygmaea* (Fabricius) in the Stephens Collection are in fact two females of *Beraea maurus* (Curtis, 1834). The example in this collection bearing the label *pygmaeus* was examined by Mr. M. E. Mosely when he was preparing his Handbook of British Caddis-Flies (1939), and he also placed it with *Beraea maurus*. He did not, however, use the name *pygmaea* in his book, due possibly to his expressed dislike of changing well-established names.

3. In an endeavour to settle the identity of *Phryganea pygmaea* Fabricius, a letter was sent to Monsieur L. Berland in Paris, asking whether the Fabrician type was still in existence in the Bosc Collection, and he replied that it could not be traced. McLachlan probably did not see this type, or he would certainly have mentioned the fact in his revision.

4. According to the Rules, an author is to be deemed to have correctly identified the species which he refers to a new nominal genus, and therefore when he or some later author designates one of those species as the type-species of the genus, that designation is not to be rejected on the ground that the species was misidentified by the original author of the generic name. There is nothing in Fabricius's original description of *Phryganea pygmaea* (1798, *Suppl. Ent. syst.* : 202) which will not fit the example identified with that species by Stephens, and one might assume that his specimen was indeed conspecific with *Phryganea pygmaea* Fabricius. If this assumption is adopted, then *Beraea maurus* (Curtis, 1834, *Lond. Edinb. phil. Mag.* (3) **4** : 216) becomes a synonym of *Beraea pygmaea* (Fabricius).

5. If the above course is rejected, then (since the identity of *Phryganea pygmaea* Fabricius cannot, in the absence of the type, be established) the generic name *Beraea* Stephens, 1833 becomes a *nomen dubium* and must remain in abeyance. The taxonomic genus to which this name has been applied will

require another name. The oldest available synonym, *Thya* Curtis, 1834 (*London Edinb. phil. Mag.* (3) **4** : 216), is not in general use and was at one time regarded as a junior homonym of *Thia* Leach, 1815 in accordance with a decision of the Paris Congress (*Bull. zool. Nomencl.* **4** : 161–162) that the difference between " y " and " i " was to be ignored in deciding whether or not a given name is a homonym of another. This was, however, repealed five years later (*Copenhagen Decisions* : 78, para. 152) when it was ruled that " a generic name is not to be treated as a homonym of another such name if it differs from it in spelling by even one letter ", so that since 1953 *Thya* Curtis, 1834 has been an available name. If this name is adopted, the well-established generic name *Beraea* will be replaced by *Thya*. Such action would not only cause confusion in the generic nomenclature of the Trichoptera, but the change would always be threatened by the possibility that the Fabrician species might one day be definitely recognised.

6. The position under the Code thus is that *Beraea* Stephens, 1833 is defined by reference to a nominal type-species (*Phryganea pygmaea* Fabricius, 1798) which is based on a *nomen dubium*, so that it cannot be said whether Stephens identified his material rightly or wrongly. His material is, however, reliably identified with another nominal species, namely *Thya maurus* Curtis, 1834. This is therefore a case where the strict application of the Rules would produce greater confusion than uniformity. I believe that it is highly desirable to stabilise the generic name *Beraea* in its accepted meaning as applied to *Beraea maurus* (Curtis, 1834) and its congeners, having regard to the facts that the name has been almost universally applied to those species since its establishment in 1833.

7. At the family-group level, the genus *Beraea* is currently referred to the family BERAEIDAE Wallengren, 1891 (*K. svensk. Vetensk.-Akad. Handl.* **24**(10) : 111), and this is the oldest available name for a family-group taxon containing this genus.

8. I therefore ask the International Commission :—

(1) to use their Plenary Powers :

- (a) to set aside all selections of type-species for the nominal genus *Beraea* Stephens, 1833, made prior to the decision now requested and, having done so, to designate the nominal species *maurus* Curtis, 1834 (as published in the binomen *Thya maurus*) to be the type-species of that genus ;
- (b) to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy the specific name *pygmaea* Fabricius, 1798 (as published in the binomen *Phryganea pygmaea*) ;

(2) to place the generic name *Beraea* Stephens, 1833 (gender : feminine), type-species, by designation under the Plenary Powers in (1) (a) above, *Thya maurus* Curtis, 1834, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *maurus* Curtis, 1834, as published in the binomen *Thya maurus* (type-species, by designation under the Plenary Powers in (1) (a) above of *Beraea* Stephens, 1833), on the

Official List of Specific Names in Zoology ;

(4) to place the family-group name BERAEIDAE Wallengren, 1891 (type-genus : *Beraea* Stephens, 1833) on the Official List of Family-group Names in Zoology ;

(5) to place the specific name *pygmaea* Fabricius, 1798, as published in the binomen *Phryganea pygmaea* (suppressed under the Plenary Powers in (1) (b) above), on the Official Index of Rejected and Invalid Specific Names in Zoology.

PROPOSED ADDITION OF THE GENERIC NAME *CHAETOPTERYX* STEPHENS, 1829, TO THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY (CLASS INSECTA, ORDER TRICHOPTERA). Z.N.(S.) 426

By D. E. Kimmins (*British Museum* (*Natural History*), *London*)

The nominal genus *Chaetopteryx* was established by Stephens (1829; *Nomen. Brit. Ins.* : 28) with *Phryganea villosa* Fabricius, 1798 (*Suppl. Ent. syst.* : 200) as the only originally included species, therefore the type-species by monotypy.

2. In 1837 (*Ill. Brit. Ins., Mand.* 6 : 232) Stephens cited the same genus as containing *Phryganea villosa* Fabricius, 1798 and *Limnephilus brevipennis* Curtis, 1834 (*Lond. Edinb. phil. Mag.* (3) 4(20) : 125) and in the same year (1837) Curtis (*Guide Arr. Brit. Ins.* ed. 2 : 169) placed the latter species first in order under *Chaetopteryx*. In the introduction to this work (: vi) Curtis states : " It may often happen that *all* of the species following such generic names would not be considered by the Author who proposed the name as belonging to his group, but the one *immediately* following is always a typical species ". This has been accepted by China (1943; *Gen. Names Brit. Ins.* : 8) as constituting the fixation of the type-species of the genera in question, and in consequence it must be taken that Curtis thus intended to fix *Limnephilus brevipennis* Curtis, 1834 as the type-species of *Chaetopteryx*. It is clear, however, that this designation is invalid because the species in question was not one of those originally included in the nominal genus.

3. McLachlan (1875, *Rev. Syn. Trich. Eur.* : 193) pointed out that Stephens misidentified the material which he cited as belonging to *Limnephilus brevipennis* and that the specimens in question really belong to *Phryganaea villosa* Fabricius, 1798.

4. *Limnephilus brevipennis* Curtis, 1834 is a subjective synonym of *Phacopteryx granulata* Kolenati, 1848, which is the type-species, by monotypy, of *Phacopteryx* Kolenati, 1848 (*Ent. Ztg. Stettin* : 18). It is not, however, generally known that Stephens established *Chaetopteryx* in 1829 with *Phryganea villosa* Fabricius, 1798, as the type-species by monotypy. Westwood and subsequent authors believed the genus to have been established only in 1837 and accepted the technically invalid type-designation by Curtis in 1837. There is therefore a danger that any author who did not know of Stephens's work of 1829 might conclude that *Phacopteryx* should be replaced by *Chaetopteryx*, and that *Chaetopteryx*, as used by Westwood and other well-known mid-nineteenth century authors, should receive a new name. Such action would cause confusion in the nomenclature in these genera by disturbing names which have been in use for over 100 years. Fortunately, the recent discovery of Stephens' earlier action makes it possible to apply the Rules strictly, for *Chaetopteryx*, following McLachlan's statement cited above, is currently applied to the group of species to which *Phryganea villosa* Fabricius, 1798 belongs, and *Phacopteryx* to the group to which *Limnephilus brevipennis* belongs. The risk of confusion in the future can thus be avoided by the Commission's agreeing to place the names concerned on the relevant Official Lists.

5. No family-group names have ever been based on either of the generic names involved in this application.

6. The International Commission is therefore asked :—

(1) to place the following generic names on the Official List of Generic Names in Zoology :

  (a) *Chaetopteryx* Stephens, 1829 (gender : feminine), type-species, by monotypy, *Phryganea villosa* Fabricius, 1798 ;

  (b) *Phacopteryx* Kolenati, 1848 (gender : feminine), type-species, by monotypy, *Phacopteryx granulata* Kolenati, 1848 ;

(2) to place the following specific names on the Official List of Specific Names in Zoology :

  (a) *villosa* Fabricius, 1798, as published in the binomen *Phryganea villosa* (type-species, by monotypy, of *Chaetopteryx* Stephens, 1829) ;

  (b) *brevipennis* Curtis, 1834, as published in the binomen *Limnephilus brevipennis* (the oldest available name for the type-species of *Phacopteryx* Kolenati, 1848).

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE AS TYPE-SPECIES OF THE NOMINAL GENUS *APATANIA* KOLENATI, 1847, THE SPECIES INTENDED BY THE ORIGINAL AUTHOR (CLASS INSECTA, ORDER TRICHOPTERA). Z.N.(S.) 427

By D. E. Kimmins (*British Museum* (*Natural History*), *London*)

The nominal genus *Apatania* was established by Kolenati in 1847 (*Allgem. deutsch. Naturhist. Ztg.* **2** (5–6) folio page appendix) in a key with *Phryganea vestita* Zetterstedt, 1840 as the only originally included species, therefore the type-species by monotypy.

2. McLachlan, 1876–1877 (*Rev. Syn. Trich. Eur.* : 212, 285) showed that the true *Phryganea vestita* is identical with *Molanna angustata* Curtis, 1834 (the type-species, by monotypy, of *Molanna* Curtis, 1834 ; *London Edinb. phil. Mag.* (3) **4** : 214) and that Kolenati had employed the name both for a species of *Apatania* and for a species of *Molanna*. McLachlan therefore placed *Phryganea vestita* Zetterstedt in the synonymy of *Molanna angustata* Curtis and adopted *Apatania wallengreni* McLachlan, 1871 (*Ent. mon. Mag.* **7** : 281) as the valid name for *vestita* Kolenati *non* Zetterstedt.

3. It is necessary under the Code to assume that Kolenati correctly identified *Phryganea vestita* Zetterstedt, 1840 and accordingly his genus *Apatania* should be treated as a subjective synonym of *Molanna* Curtis, 1834. *Apatania* is the type-genus of the nominal subfamily APARANIINAE Wallengren, 1891 (*K. svensk. Vetensk.-Akad. Handl.* **24**(10) : 85, as family APATANIIDAE), which is placed in a distinct family from *Molanna*, type-genus of the family MOLANNIDAE Wallengren, 1891, *ibid.* : 116. Acceptance of the Rules would thus involve not only the provision of a new name for the genus now known as *Apatania* and a change in nomenclature at the family-group level, but it would also run directly counter to Kolenati's intentions and would be open to the strongest objections in that it would involve the acceptance as type-species of *Apatania* of a species (*Phryganea vestita* Zetterstedt) disagreeing completely with the generic diagnosis and with the figure of the wings given by Kolenati in his " Gen. spec. Trich, pars prior " issued separately in 1848 and re-published in 1851 (*Abh. königl.-böhm. Ges. Wiss.* (5) **6** : 17, pl. ii, fig. 14). It is for these reasons that it is desired (a) to disregard Kolenati's designation of *Phryganea vestita* Zetterstedt, 1840 as the type-species, by monotypy, of *Apatania* Kolenati, 1847 ; (b) to accept *Apatania wallengreni* McLachlan, 1871 as the type-species of that genus ; and (c) to continue current taxonomic practice in treating *Phryganea vestita* Zetterstedt as a junior subjective synonym of *Molanna angustata* Curtis, 1834.

4. I therefore ask the International Commission on Zoological Nomenclature :—

(1) to use its Plenary Powers to set aside all designations of a type-species for the nominal genus *Apatania* Kolenati, 1847 made prior to the ruling asked for and, having done so, to designate *Apatania wallengreni* McLachlan, 1871 as the type-species of that genus ;

(2) to place the following generic names on the Official List of Generic Names in Zoology:
  (a) *Apatania* Kolenati, 1847 (gender: feminine), type-species, by designation under the Plenary Powers in (1) above, *Apatania wallengreni* McLachlan, 1871;
  (b) *Molanna* Curtis, 1834 (gender: feminine), type-species, by monotypy, *Molanna angustata* Curtis, 1834;

(3) to place the following specific names on the Official List of Specific Names in Zoology:
  (a) *wallengreni* McLachlan, 1871, as published in the binomen *Apatania wallengreni* (type-species, by designation under the Plenary Powers in (1) above, of *Apatania* Kolenati, 1847);
  (b) *angustata* Curtis, 1834, as published in the binomen *Molanna angustata* (type-species, by monotypy, of *Molanna* Curtis, 1834);

(4) to place the following family-group names on the Official List of Family-group Names in Zoology:
  (a) APATANIIDAE Wallengren, 1891 (type-genus: *Apatania* Kolenati, 1847);
  (b) MOLANNIDAE Wallengren, 1891 (type-genus: *Molanna* Curtis, 1834).

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE FOR THE NOMINAL GENUS *APHROPHORA* GERMAR, 1821 (CLASS INSECTA, ORDER HEMIPTERA) A TYPE-SPECIES IN HARMONY WITH CURRENT USE. Z.N.(S.) 478

By Frej Ossiannilsson (*Kungl. Lantbrukshögskolan, Institutionen för Växtsjukdomslära, Uppsala, Sweden*)

I herewith submit to the International Commission on Zoological Nomenclature the following application regarding the type-species of the nominal genus *Aphrophora* Germar, 1821, a genus based on a misidentified type-species. The details of the case are set out below.

2. (a) Generic name: *Aphrophora* Germar, 1821 (*Mag. Ent. Germar*, **4**(1) : 48–50).

(b) Nominal type-species: *Cicada spumaria* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 437, No. 24), selected by Westwood (1840, *Introd. mod. Classif. Ins.* **2**, Synopsis Gen. Brit. Ins. : 116).

(c) Species intended by the original author of the generic name when employing the specific name in question : *Cercopis spumaria* (Linnaeus, 1758) Fabricius, 1775, *nec* Linnaeus, 1758, i.e. the species for which the valid name is *Cercopis alni* Fallén ([1806], *K. Vetensk.-Akad. nya Handl.*, **26** (No. 4) : 240–243).

3. Germar included eleven species in his new genus *Aphrophora*. The specific name of the first among these was *spumaria*, with the citations of Fabricius, Panzer and Linnaeus. Although Germar did not refer to Fallén in this connection, it is apparent that he, as well as Fabricius in 1775, identified the species of Linnaeus with that described by Fallén [1806] under the name of *Cercopis alni*. When Westwood (1840) selected *Cicada spumaria* as the type-species of *Aphrophora*, which he did without discussion and without citing any synonyms, he interpreted the species in the same way, as is clear from his definition of the genus.

4. Fallén, however, ([1806], *K. Vetensk.-Akad. Nya Handl.*, **26** (no. 4) : 244–250) interpreted *Cicada spumaria* as the valid synonym of *Cicada leucophthalma* Linnaeus (1758, *Syst. Nat.*, (ed. 10), **1** : 437, No. 26), over which the name *Cicada spumaria* has line-precedence. In this sense it was included by Stål (1864, *Ent. Ztg. Stettin* **25** : 66) in his new genus *Philaenus* and this interpretation of Fallén's has been accepted by most European authors. Horváth, however, (1898, *Rev. Ent. franç.* **17** : 275–276) stated that Fallén's interpretation was erroneous and held that *Cicada spumaria* Linnaeus, 1758 and *Cercopis alni* Fallén, [1806] were identical. If this view were correct, the valid name for *Cercopis alni* Fallén would be *Aphrophora spumaria* (Linnaeus), while the common meadow frog-hopper would be named *Philaenus leucophthalmus* (Linnaeus). Horváth based his opinion on the following considerations : (1) In the Linnean collection, under the name of *Cicada spumaria*, there are preserved one specimen of *Aphrophora alni* (Fallén) and one specimen of *Philaenus spumarius* : (Fallén) (= *leucophthalmus* Linnaeus sp.) ; (2) the description of Linnaeus corresponds better with the former than with the latter ; (3) the words of Linnaeus—"*frequens in Salice viminali*"—indicate

that the former species was intended. Schumacher (1919; *Ent. Mitt.* **8** : 191–193) refuted this opinion. He argued (1) that later transpositions and additions had taken place in the Linnean collection, making doubtful the rank as type specimens of certain of the specimens included; (2) that the description of *Cicada spumaria* Linnaeus does not correspond better with *Aphrophora alni* than with *Philaenus spumarius*, in contradiction to the statement of Horváth; (3) that the note in *Fauna Svecica* (ed. 1) regarding the colour variation of *Cicada spumaria* is not applicable to *Aphrophora alni* but is certainly applicable to *Philaenus*; (4) that Linnaeus, in *Fauna Svecica* (ed. 1) : 202, under No. 640, stated that his species Nos. 635–640 (i.e. those later named *Cicada spumaria*, *lineata*, *leucophthalma*, *lateralis* and *leucocephala*) were similar to each other in all except colour—which would certainly not be true if *Aphrophora alni* was one of those species.

5. In all this I agree with the view expressed by Schumacher. In addition it may be pointed out that Linnaeus cited de Geer (1741; *K. svensk. Vetensk.-Akad. Handl.* **2** : 221–236, tab. vii) and that he laid particular stress (in *Fauna Svecica*, ed. 1) on the accuracy of de Geer's description and figures. The insect reproduced by de Geer in 1741 is unmistakably *Philaenus spumarius* (Linnaeus) in the sense of Fallén. By a special investigation during the summer of 1950, I have been able to show that *Aphrophora alni* (Fallén), at least in the region of Uppsala, where Linnaeus lived, breeds by no means more often on *Salix viminalis* or other *Salix* species than *Philaenus spumarius* as this species was interpreted by Fallén. In consequence, the third argument of Horváth loses its force. The results of this investigation have been published elsewhere (Ossiannilsson 1950, *Opuscula Entom.* (Lund) **15** : 145–156).

6. *Cicada spumaria* Linnaeus, 1758, is thus identical with *Cercopis spumaria* (Linnaeus), Fallén [1806] (= *leucophthalma* Linnaeus, 1758). The latter was selected as type-species of *Philaenus* Stål, 1864, by Van Duzee (1917; *Cat. Hem. Amer. north of Mexico*: 513). *Cicada spumaria* thus becomes the oldest available name for the type-species of *Philaenus* Stål, 1864, and that well-known generic name becomes a junior synonym of *Aphrophora* Germar, 1821, since *Cicada spumaria* is the nominal species first validly selected as the type-species of the latter (by Westwood (1840); see paragraph 2 above). The taxonomic concept represented by the generic name *Aphrophora* auctorum will thus be without a valid name if the International Commission does not intervene. But since, as has already been shown, the species intended by Germar (1821) and Westwood (1840) was not *Cicada spumaria* Linnaeus, but *Cercopis spumaria* (Linnaeus, 1758), Fabricius, 1775, it is clear that the genus *Aphrophora* Germar, 1821 is based upon a species misidentified by the original author of the generic name. The matter will be rectified in the best interests of stability of nomenclature if the Commission sets aside the selection by Westwood (1840) of *Cicada spumaria* Linnaeus, 1758 as the type-species of *Aphrophora* and designates the species intended by Germar and by Westwood, namely the species for which the valid name is *Cercopis alni* Fallén [1806].

7. Lallemand (1949; *Mém. Inst. roy. Sci. nat. Belg.* (2) **32** : 7–8) argued that *Cercopis spumaria* is the valid name for *Cercopis alni* Fallén, [1806], as it is not homonymous with *Cicada spumaria* Linnaeus, 1758. This would

only be true if Germar, in establishing the nominal genus *Aphrophora* in 1821, had explicitly stated that he was applying the specific name *spumaria* in the sense of Fabricius, 1775, not of Linnaeus, 1758. This is not, however, the case. Fabricius in fact misidentified the species of Linnaeus (placing another species under that name in his new genus *Cercopis*), and Germar did not perceive that misidentification, since he accepts Fabricius' (1775) usage of the name as synonymous with that of Linnaeus. The specific name *spumaria* cannot therefore rank as a valid name for a new species either from Fabricius (1775) or from Germar (1821).

8. In July 1956 I examined the Hemiptera part of the Linnean collection in London and there saw the two above-mentioned specimens of "*Cicada spumaria*". I designated the *Philaenus* specimen to be the lectotype of *Cicada spumaria* Linnaeus, 1758 (Ossiannilsson 1957, *Opuscula Entom.* **22** : 1) and so far as I know no previous lectotype selection has ever been made for this species.

9. *Cicada spumaria* has also been cited (Distant 1907 ; Lallemand 1912) as the type-species of the genus *Ptyelus* Lepeletier & Serville, 1827 (*Ency. méth.* (Ins.) **10** : 608), a genus established for two new species (*Ptyelus ferrumequinum*, a junior subjective synonym of *Tettigonia flavescens* Fabricius, 1794 (*Ent. syst.* **4** (Suppl.) : 24) ; and *Ptyelus dianthi*, a junior subjective synonym of *Cicada spumaria* Linnaeus, 1758) and including three previously established species :

(1) *Ptyelus marginellus*, with synonymy *Aphrophora marginella* Germar, 1818, *Cicada lateralis* Panzer, 1793 and *Cicada marginella* Fabricius, 1775. All these are forms of *Cicada spumaria* Linnaeus, 1758.
(2) *Cicada angulata* Fabricius, 1794 (a junior subjective synonym of *Lepyronia coleoptrata* (Linnaeus, 1758)).
(3) *Cicada lineata* Linnaeus, 1758 (now *Neophilaenus lineatus* (Linnaeus, 1758)).

10. *Cicada spumaria* was not, however, referred to *Ptyelus* by Lepeletier & Serville either as a valid species or as a synonym, so that the designation by Distant (1907) and Lallemand (1912) of that species as the type-species of *Ptyelus* is invalid. This means that *Ptyelus* Lepeletier & Serville is still without a type-species. In accordance with modern taxonomic usage, I herewith designate *Ptyelus ferrumequinum* to be the nominal type-species of *Ptyelus* Lepeletier & Serville, 1827. The oldest available name for this species is *Tettigonia flavescens* Fabricius, 1794.

11. The genera *Aphrophora*, *Philaenus* and *Ptyelus* are at present referred to the tribes Aphrophorini, Philaenini and Ptyelini of the subfamily Aphrophorinae, family Aphrophoridae. The oldest family-group name based on the generic name *Aphrophora* is the vernacular word APHROPHORIDES Amyot & Serville (1843 ; *Hist. nat. Ins.*, Hémiptères : 563). This name was duly latinised as APHROPHORIDAE by Dohrn (1859 ; *Cat. Hemipt.* : 68) and is generally accepted by workers in Hemiptera, so that it satisfies the provisions adopted by the London (1958) Congress in regard to the availability of family-group names first published with vernacular terminations. The oldest family-group name based on the generic name *Philaenus* is PHILAENINI Metcalf (1955 ;

J. Wash. Acad. Sci. **45** : 264). The oldest family-group name based on the generic name *Ptyelus* is PTYELINAE Fowler (1897 ; *Biol. Cent.-Amer.*, **2** : 174) in a Key. These family-group names, being the oldest available such names for the taxa to which they relate, and being all in general current use, should therefore be added to the Official List of Family-group Names in Zoology.

12. The International Commission on Zoological Nomenclature is accordingly requested :

(1) to use its Plenary Powers :—
- (a) to set aside all selections of type-species for the nominal genus *Aphrophora* Germar, 1821 made prior to the Ruling now requested, and, having done so, to designate *Cercopis alni* Fallén, [1806] to be the type-species of the above genus ;
- (b) to set aside all selections of type-species for the nominal genus *Ptyelus* Lepeletier & Serville, 1827 made prior to the Ruling now requested, and, having done so, to designate *Ptyelus ferrumequinum* Lepeletier & Serville, 1827 to be the type-species of the above genus ;

(2) to place the under-mentioned generic names on the Official List of Generic Names in Zoology :—
- (a) *Aphrophora* Germar, 1821 (gender feminine), type-species, by designation under the Plenary Powers in 1(a) above : *Cercopis alni* Fallén, [1806] (Class Insecta, Order Hemiptera) ;
- (b) *Ptyelus* Lepeletier & Serville, 1827 (gender masculine), type-species, by designation under the Plenary Powers in 1(b) above : *Ptyelus ferrumequinum* Lepeletier & Serville, 1827 ;
- (c) *Philaenus* Stål, 1864 (gender masculine), type-species by selection by Van Duzee (1917) ; *Cicada spumaria* Linnaeus, 1758, as defined by the lectotype selected by Ossiannilsson, 1957 (Class Insecta, Order Hemiptera) ;

(3) to place the under-mentioned specific names on the Official List of Specific Names in Zoology :—
- (a) *alni* Fallén [1806] as published in the binomen *Cercopis alni* (type-species, by designation under the Plenary Powers in 1(a) above of *Aphrophora* Germar, 1821) ;
- (b) *spumaria* Linnaeus, 1758 as published in the binomen *Cicada spumaria* and as defined by the lectotype selected by Ossiannilsson, 1957 (type-species, by selection by Van Duzee (1917) of *Philaenus* Stål, 1864) ;
- (c) *flavescens* Fabricius, 1794, as published in the binomen *Tettigonia flavescens* (the oldest available name for the type-species of *Ptyelus* Lepeletier & Serville, 1827) ;

(4) to place the under-mentioned names on the Official List of Family-group Names in Zoology :—

APHROPHORIDAE (correction by Dohrn, 1859, of APHROPHORIDES) Amyot & Serville, 1843, type-genus *Aphrophora* Germar, 1821 ;
PHILAENINI Metcalf, 1955, type-genus *Philaenus* Stål, 1864 ;
PTYELINI Fowler, 1897, type-genus *Ptyelus* Lepeletier & Serville, 1827.

PROPOSED ADDITION TO THE OFFICIAL LIST OF SPECIFIC NAMES IN ZOOLOGY OF THE SPECIFIC NAME *CASERTANUM* POLI, 1791, AS PUBLISHED IN THE BINOMEN *CARDIUM CASERTANUM* (CLASS PELECYPODA). Z.N.(S.) 500

By A. E. Ellis (*Epsom College, Epsom, Surrey, England*) and E. B. Herrington (*Westbrook, Ontario, Canada*)

Until 1921 the specific name *casertanum* Poli, 1791, as published in the binomen *Cardium casertanum* (*Testacea utriusque Siciliae* **1**, Bivalvia: 65, pl. 16, fig. 1) was in regular use for a common species of freshwater lamellibranch of the genus *Pisidium*. In 1921, B. B. Woodward (*Proc. malac. Soc. Lond.* **14** : 209) claimed that Poli's work must be " ruled out as not a serious contribution to systematic zoology, and his names have to be discarded ", on the grounds that Poli gave one set of names to the shells and another to the contained animals. Woodward concluded that the next available name for the species was *Pisidium cinereum* Alder, 1838 (*Trans. nat. Hist. Soc. Northumb.* **2** : 341), and some subsequent authors have accordingly employed this name.

2. After carefully studying Poli's description and figure of *Cardium casertanum*, we are in agreement with Woodward that there can be no doubt as to the identity of this species, which, moreover, has been found to be the sole species of *Pisidium* living in the type-locality near Caserta (Boettger, 1954, *Arch. Moll.* **83** : 137–138). Both description and figure are good for the eighteenth century, and are superior to many published later and accepted as adequate. We are unable, however, to agree with Woodward's contention that Poli's work should be rejected for purposes of nomenclature: it is consistently binominal and Linnean, and his practice, not unusual at that period, of in some cases giving the animal and the shell different names, constitutes no ground for discarding his names *in toto*. In the present instance, he described only the dead shell of *Cardium casertanum*, and neither knew nor named the contained animal. [The question of the availability of Poli's work for purposes of zoological nomenclature has been registered in the Commission's office under the number Z.N.(S.) 488. Editor]

3. Some of the leading authorities on the genus *Pisidium*, e.g. A. W. Stelfox, Jules Favre, Temple Prime and Victor Sterki, have always used Poli's name, and quite ninety per cent. of the material of this species in the collections of the British Museum (Natural History) is labelled *Pisidium casertanum* (Poli). The rejection of Poli's name in favour of Alder's would involve much profitless labour in relabelling specimens in museums and private collections, and would cause more confusion in the literature than would be occasioned by the stabilisation of that name in preference to the specific name *cinereum* Alder.

4. Although Poli's figure is adequate as a standard of reference for the species, the following published descriptions and figures will help to make clear the way in which it is understood :

Stelfox, A. W., 1918, *J. Conchol.* **15**, pl. 9, figs. 27, 28.
Favre, J., 1927, *Mém. Soc. phys. Hist. nat. Genève* **40** : 290, pl. 17, fig. 12, pl. 22, fig. 1a–c.

Ellis, A. E., 1940, *Proc. malac. Soc. Lond.* **24** : 54–55, fig. 7, pl. 4, fig. 35.

5. We therefore request the International Commission on Zoological Nomenclature :—

(1) to rule that the nominal species *Cardium casertanum* Poli, 1791 is to be interpreted by reference to fig. 1 on pl. 16 of Poli's work *Testacea utriusque Siciliae*, **1**, Bivalvia ;

(2) to place the specific name *casertanum* Poli, 1791, as published in the binomen *Cardium casertanum*, and as defined in (1) above, on the Official List of Specific Names in Zoology.

PROPOSED ADDITION TO THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY OF THE GENERIC NAME *SPIRONTOCARIS* BATE, 1888 (CLASS CRUSTACEA, ORDER DECAPODA). Z.N.(S.) 621

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands*)

The purpose of the present application is to seek the addition to the Official List of Generic Names in Zoology of the name of a well-known genus of Caridean shrimps. The nominal genus in question is *Spirontocaris* Bate, 1888, *Rep. Voy. Challenger* (Zool.) **24** : 576, 595, type-species, by monotypy, *Cancer spinus* Sowerby, 1805, *Brit. Miscell.* **4** : 47.

2. So far as is known to me, this generic name is available in the sense that it has not previously been used for any other genus in the Animal Kingdom and that it has been proposed in accordance with the requirements of the International Rules of Zoological Nomenclature. It has been used by every author who recognises the distinctness of the genus from the genus *Hippolyte* [Leach], [1814] and it is generally accepted in modern carcinological literature.

3. There is, however, a minor complication connected with this name which might become a potential menace to the stability of the name *Spirontocaris*. When Bate studied the Crustacea Macrura of the Challenger Expedition, he found a parasitic Cirripede on a specimen of the species which he intended to describe in his report under the name *Spirontocaris spinus* (Sowerby). He sent this parasite to Dr. P. P. C. Hoek in Holland, to whom the study of the Cirripedia of the Challenger Expedition had been entrusted. At the meeting of the Netherlands Zoological Society on 18th December 1886, Dr. Hoek made some remarks on the parasite and stated it to have been found on a specimen of "*Sowerbyus spinus*". The proceedings of this meeting were published in 1887 (*Tijdschr. Nederl. dierk. Ver.* (2) **1** : ccviii) and the binomen *Sowerbyus spinus* is there published for the first time. The generic name is obviously a manuscript name of Bate's for the genus in which he later placed *Cancer spinus* Sowerby. Bate probably changed *Sowerbyus* to *Spirontocaris* because he thought the former name showed too much resemblance to *Sowerbya* d'Orbigny (1850), a genus of Mollusca (Pelecypoda). In Hoek's note the name *Sowerbyus* was published one year before the publication of the name *Spirontocaris* by Bate. As Hoek cited the binomen *Sowerbyus spinus* without mentioning the author of either name, and as he gave no details whatsoever of the species, the generic name *Sowerbyus* may conveniently be considered a *nomen nudum*. However, since *Cancer spinus* Sowerby was probably the only shrimp bearing the specific name *spinus* at that time, the association of that specific name with the generic name *Sowerbyus* might be considered by some authors a sufficient indication to make the generic name available and to identify the genus in question.

4. In order to prevent the validity of the well-known generic name *Spirontocaris* Bate, 1888, from ever being threatened by the generic name *Sowerbyus* Hoek, 1887, I ask the International Commission on Zoological Nomenclature :—

(1) to place on the Official List of Generic Names in Zoology the generic

name *Spirontocaris* Bate, 1888 (gender : feminine), type-species, by monotypy, *Cancer spinus* Sowerby, 1805 (Class Crustacea, Order Decapoda) ;

(2) to place on the Official List of Specific Names in Zoology the specific name *spinus* Sowerby, 1805, as published in the binomen *Cancer Spinus* [*sic*], (type-species, by monotypy, of *Spirontocaris* Bate, 1888) ;

(3) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the generic name *Sowerbyus* Hoek, 1887 (a *nomen nudum*).

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE CURRENTLY ACCEPTED EMENDATION *DREPANELLA* FOR THE GENUS INTRODUCED UNDER THE NAME *DEPRANELLA* ULRICH, 1890 (CLASS CRUSTACEA, ORDER OSTRACODA). Z.N.(S.) 1112

By P. C. Sylvester-Bradley (*University of Sheffield, England*)
Harold W. Scott (*University of Illinois, U.S.A.*)
Jean M. Berdan (*U.S. Geological Survey*)

Ulrich in 1890 proposed the name *Depranella* for a new genus of Ostracod. In 1894 he indicated that this was a spelling error for *Drepanella*. Until 1955, this emendation has been universally adopted, and the genus has become type of the family-group name spelt DREPANELLIDAE Ulrich & Bassler, 1923. In 1955 Howe pointed out, however, that the emendation to *Drepanella* was invalid according to the Rules. This application proposes that the Commission uses its Plenary Powers to validate an emendation that has been universally recognized for over sixty years.

2. Ulrich (1890, *J. Cincinnati Soc. nat. Hist.* : 117, 118) proposed the name *Depranella* for five new species, one of which (*D. crassinoda*) was designated as type. No indication was made of the derivation of the name, which was spelt consistently throughout the paper, being mentioned 12 times in all.

3. Ulrich (1894, *Rep. Minnesota geol. & nat. Hist. Surv.*, **3** : 670) indicated that *Depranella* was an error for *Drepanella*. Again the etymological derivation of the word was not discussed, but it is reasonable to suppose it is derived from the Greek substantive *δρεπανον*, a sickle, and that it has reference to a well marked sickle-shaped marginal ridge that characterizes the type-species.

4. Since 1894 the genus *Drepanella* has been abundantly quoted in the literature, always with the emended spelling. Ulrich & Bassler (1923, *Maryland geol. Surv. Silurian Vol.* : 308) based on it the subfamily DREPANELLINAE. This was subsequently raised to family rank by Swartz (1936, *J. Paleont.*, **10** : 552).

5. In 1955 Howe (*Handbook of Ostracod Taxonomy* : 60) pointed out that "Ulrich in 1890 had made no obvious typographical error, or *lapsus calami*, and that under the Rules he was not permitted to change the name." It appears that Howe is perfectly right in his contention. According to the definitions introduced at Copenhagen (1953, *Copenhagen Decisions zool. Nomencl.* : 43, 44) *Depranella* is the only "valid original spelling," and *Drepanella* Ulrich, 1894 is an "invalid emendation", and as such ranks as a junior objective synonym of *Depranella* Ulrich, 1890.

6. For all that, we believe that it would now be tiresome and confusing to change the spelling of a name that has been universally used in its emended form, and we recommend that the Commission should validate the emendation of *Depranella* to *Drepanella*.

7. The subfamily name DREPANELLINAE Ulrich & Bassler, 1923, was changed to DEPRANELLINAE by Howe (1955, *op. cit.* : 61) "to correspond with the original spelling of its type genus *Depranella*." According to regulations introduced at Copenhagen, a family-group name is to be emended in accordance

with the valid emendations of that part of the generic name on which the family-group name in question is based (*Copenhagen Decisions zool. Nomencl.* : 36). Thus if the present proposals for the emendation of the generic name are accepted, the correct form of the family-group name must automatically remain DREPANELLINAE, as first introduced, and as consistently used until 1955.

8. Accordingly we now formally submit that the International Commission on Zoological Nomenclature should :—

(1) use its Plenary Powers to validate the currently accepted emendation *Drepanella* for the generic name *Depranella* Ulrich, 1890 ;

(2) place the generic name *Drepanella* (emendation of *Depranella*) Ulrich (E.O.), 1890 (gender : feminine), type-species, by original designation *Drepanella crassinoda* Ulrich, 1890, on the Official List of Generic Names in Zoology ;

(3) place the specific name *crassinoda* Ulrich, 1890, as published in the combination *Depranella crassinoda* (type-species of *Drepanella* Ulrich, 1890) on the Official List of Specific Names in Zoology ;

(4) place the family-group name DREPANELLINAE Ulrich & Bassler, 1923, (type-genus : *Drepanella* Ulrich, 1890) on the Official List of Family-group Names in Zoology ;

(5) place the generic name *Depranella* Ulrich, 1890 (an Original Spelling suppressed under the Plenary Powers in (1) above for the purposes of the Law of Priority but not for those of the Law of Homonymy) on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(6) place the family-group name DEPRANELLINAE Howe, 1955 (a name based on a generic name suppressed under the Plenary Powers in (1) above, and an objective junior synonym of DREPANELLINAE Ulrich & Bassler, 1923) on the Official Index of Rejected and Invalid Family-group Names in Zoology.

PROPOSED REJECTION FOR NOMENCLATORIAL PURPOSES OF BERTRAND (E.), 1763 " DICTIONNAIRE UNIVERSEL DES FOSSILES PROPRES ET DES FOSSILES ACCIDENTELS ". Z.N.(S.) 1185

By R. V. Melville (*Geological Survey and Museum, London, S.W.*7) [1]

The purpose of the present application is to ask the International Commission for a ruling rejecting for nomenclatorial purposes the work by Bertrand (E.) published at La Haye in 1763 under the title *Dictionnaire Universel des Fossiles Propres et des Fossiles Accidentels* (2 vols.). The reasons for this request are set out below.

2. In the course of compiling a list of names in the Order/Class-group in the Class Echinoidea, Professor J. Wyatt Durham and the writer came to consider whether the names " echiniti, echinometra, echinodermata ", used by Bertrand (E.), 1763, Vol. II : 100 as alternative names for a taxon including all known echinoids, should be added to the list. This led to an examination of Bertrand's work to see whether it should be regarded as a nomenclatorially available work or not. The work certainly includes some names in binominal combination, but polynominal names also occur and it is clear that the author did not consistently adopt the principles of binominal nomenclature. The position of books of this type was considered by the Thirteenth International Congress of Zoology, Paris, 1948, which decided that words should be inserted in the *Règles* to make it clear that, in order to qualify for the purposes of Proviso (b) to Article 25, as an author who had applied " les principes de la nomenclature binominale ", an author must have consistently applied those principles in the book or paper in question and not merely in a particular section or passage (see 1950, *Bull. zool. Nomencl.* **4** : 175, Decision 67). It appears clear, therefore, that Bertrand's *Dictionnaire Universel* is not available for nomenclatorial purposes. That this is so is fortunate, since there are at least six names in this work which would otherwise be available as generic names and which would in each case be senior synonyms of a generic name now in use, while others would be senior homonyms of such names.

3. The work was first considered not from the standpoint of binominal nomenclature (that is, the nomenclature of the genus and species groups), but from the standpoint of the Order/Class-group. It seems to the writer a natural corollary of the rejection of a particular work for nomenclatorial purposes at the genus and species level that the same work is also rejected for the same purposes at all higher levels. This corollary seems never yet, however, to have been explicitly stated, and the Commission is invited to consider whether it might not be expedient to issue a Declaration to this effect, covering works already placed, or requested to be placed, on the Official Index of Rejected Works in Zoological Nomenclature as well as future cases.

4. Although Bertrand stated (Vol. I : xv–xvi) " Tout système peut être partagé de cinq manières : classes, ordres, genres, espèces, varietés, ce sont-là autant de devisions qu'il faut saisir et suivre ", he does not consistently adopt

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[1] By permission of the Director, Geological Survey and Museum.

this Linnean system in his classification of fossils, which for him meant not only organic remains, but minerals, rocks, and all substances dug out of the earth. His Latin or latinised names are also in most cases given as synonyms of the French word that heads each article, and there may be several of these, including both binominal and polynominal names. An example is found in the article "ALCIONS. *Alcyonia corallofungitae* [binominal] : *Corallia figura fungorum terrestrium* [polynominal] : *Pori lapidei* [binominal]. It is not clear which, if any, of these names Bertrand is adopting.

5. It is nevertheless clear in some cases that Bertrand is adopting a particular Latin name as the equivalent of the French name heading a particular article. In some cases these names are accompanied by a description, or by references to published works, or both, sufficient (other things being equal) to give his names availability under the Rules. Thus the name *Buglossa* Bertrand, 1763 would replace the name *Ogygiocaris* Angelin, 1854 (Class Trilobita) and the name *Ornitoglossum* would replace the name *Odontaspis* Agassiz (J.L.R.), 1835 (Class Pisces). Both of these names are in general use and applications are pending for the addition of each of them to the Official List.

6. In accordance with the principle recommended by the Fourteenth International Congress of Zoology, Copenhagen, 1953 (*Copenhagen Decisions zool. Nomencl.* : 23–4, Decision 23), I therefore request the International Commission on Zoological Nomenclature :—

(1) to give a ruling that in the work entitled " Dictionnaire Universel des Fossiles Propres et des Fossiles Accidentels " published at La Haye in 1763, E. Bertrand did not adopt the principles of binominal nomenclature as required by the Rules, and therefore that no name acquired the status of availability by reason of being published in that work ;

(2) to place the title of the foregoing work on the Official Index of Rejected and Invalid Works in Zoological Nomenclature ;

(3) to add the generic names set out in Annexe 1 to the present application to the Official Index of Rejected and Invalid Generic Names in Zoology as rejected for the purposes both of the Law of Priority and of the Law of Homonymy ;

(4) to add the accidentally binominally-formed specific names set out in Annexe 2 to the present application to the Official Index of Rejected and Invalid Specific Names in Zoology as rejected for the purposes both of the Law of Priority and of the Law of Homonymy.

(Note to the Annexes.—Since Bertrand's work is in the French language, it has been assumed that the word heading each article is a French word unless there is obvious evidence to the contrary, as in the case of the generic name *Astacopodium* listed in Annexe 1 below. In particular, heading words ending in -ites have been taken as vernacular words. Latin names are generally printed in italics or in small capitals and are often preceded by the words " en Latin . . . ".).

ANNEXE 1

List of generic names published by Bertrand (E.), 1763 and requested in Paragraph 6(3) above to be rejected.

Vol. I, p. 1	*Acanthiodos*
14	*Alcyonia*
	Pori
53	*Arquatula*
60	*Astacopodium*
	Corallium
62	*Astropodium*
	Astrorrhisa
	Stellarum
	Auricularia
64	*Balenosteon*
	Xylosteon
65	*Belemnites*
89	*Soldat.*[*us*]
90	*Bidentula*
104	*Brissoides*
	Brissus
105	*Bufonites*
106	*Buglossa*
111	*Calamus*
114	*Calopodium*
115	*Capsularia*
	Carcinopodium
	Forficula
	Carina
	Carinula
120	*Ceramites*
131	*Cidaris*
143	*Cymbium*
	Bulimus
	Coretus
	Pedipes
	Cochlea
	Yetus
	Terebra
	Porcellana
	Peribolus
	Purpura
	Cerithium
	Vermetus
	Natica
	Ostreum

Vol. I, p. 143	*Jataronus*
	Perna
	Petunculus
162	*Corticularia*
183	*Crocodilus*
	Ctenites
187	*Cultellaria*
192	*Ophiodontes*
202	*Epiphiaria*
210	*Falcatula*
244	*Galeatula*
	Gammarolithus
	Gammarolites
245	*Glandularia*
250	*Gobio*
253	*Grazirrhinchus*
259	*Haliotites*
	Hamellus
263	*Haeratula*
	Hippurites
280	*Limaculum*
Vol. II, p. 3	*Malacostraca*
44	*Porus*
61	*Mytiloides*
66	*Musica*
80	*Onychites*
	Unguis
87	*Ornitoglossum*
92	*Ostracia*
	Ostracites
	Ostreites
	Lithostreon
	Limnostracites
	Listronites
100	*Ovarium*
	Carduus
	Aurantium
	Scolopendrites
	Ombrias
	Brontias
	Buffonita

Vol. II, p. 100	*Pileus*
	Galea
	Hystrix
102	*Echinites*
103	*Latoclythus*
	Conoideus
	Conulus
	Echinometrites
	Globulus
	Placenta
	Laganum
	Melita
	Rotula
104	*Scutum*
	Cor
	Pleurocystus
107	*Patellites*
108	*Pectonculites*
109	*Pentacrinos*
	Pentaphyllites
117	*Pholadites*
122	*Pes*
128	*Pinnularia*
	Plagiostomos
130	*Platyrrhynchus*
	Plectronites
	Plectronita
137	*Porpites*
	Portellaria
147	*Psetites*
	Pseudocorallium
Vol. II, p. 147	*Ceration*
150	*Quadrella*
154	*Quinquevalvula*
155	*Retepora*
	Retes
157	*Rhombiscus*
	Rhombites
	Ryncolithus
	Ricinus
159	*Rostrago*
	Plectorites
160	*Rutellum*
164	*Sacculus*
174	*Saponella*
	Scalpellus
	Scapula
	Scapularia
176	*Scopula*
	Scutulum
185	*Serratula*
	Serrella
	Siliquastrum
186	*Solearia*
190	*Spatagoides*
	Spatangus
198	*Spongiolithes*
205	*Strigosula*
209	*Sulcatula*
229	*Tridentula*
	Trigonella

ANNEXE 2

List of specific names published by Bertrand (E.), 1763 in accidental binominal combinations and requested in Paragraph 6(4) above to be rejected.

Vol. I, p. 14	*corallofungitae* in the binominal combination	*Alcyonia corallofungitae*
	lapidei	*Pori lapidei*
42	*Noachi*	*Arca Noachi*
53	*punctata*	*Arquatula punctata*
60	*columnares*	*Asterias columnares*
	Stellatum	*Corallium Stellatum*
62	*modiolus*	*Stellarum modiolus*
64	*lamellatum*	*Xylosteon lamellatum*
89	*Cancellius*	*Soldat.* [*us*] *Cancellius*
111	*Indicus*	*Calamus Indicus*

Vol. I, p. 183	*petrefactus* in the binominal combination	*Crocodilus petrefactus*
192	*Melitenses*	*Ophiodontes Melitenses*
263	*corallinus*	*Hippurites corallinus*
Vol. II, p. 44	*anguineus*	*Porus anguineus*
61	*lapideus*	*Mytilus lapideus*
80	*lapideus*	*Unguis lapideus*
100	*marinus*	*Carduus marinus*
	marinum	*Aurantium marinum*
102	*mammillaris*	*Echinites mammillaris*
	ovarius	*Echinites ovarius*
	Rotularis	*Echinites Rotularis*
	Clypeatus	*Echinites Clypeatus*
	Histrix	*Echinites Histrix*
	mammillaris	*Cidaris mammillaris*
	coronalis	*Echinites coronalis*
	miliaris	*Cidaris miliaris*
	variolata	*Cidaris variolata*
	mammillata	*Cidaris mammillata*
	mauri	*Cidaris mauri*
	assulata	*Cidaris assulata*
103	*fibularis*	*Echinites fibularis*
	galeatus	*Echinites galeatus*
	discoideus	*Echinites discoideus*
104	*spatagoideus*	*Echinites spatagoideus*
	cordatus	*Echinites cordatus*
	marinum	*Cor marinum*
109	*Lachmundi*	*Pentacrinos Lachmundi*
	Aldrovandi	*Pentaphyllites Aldrovandi*
122	*asini*	*Pes asini*
128	*depressus*	*Echinites depressus*
155	*marina*	*Retes marina*
	linteiformis	*Eschara linteiformis*
174	*vulgaris*	*Scapula vulgaris*
176	*littoralis*	*Scopula littoralis*

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAME *WESTENOCERAS* FOERSTE, 1924, SO AS TO PRESERVE THE NAME *WESTONOCERAS* FOERSTE, 1924 (CLASS CEPHALOPODA). Z.N.(S.) 1226

By Rousseau H. Flower (*Bureau of Mines, Socorro, New Mexico*) and
Curt Teichert (*Golden, Colorado, U.S.A.*)

The purpose of the present application is to ask the International Commission to take the action needed to validate the generic name *Westonoceras* and to suppress the generic name *Westenoceras*, variant spellings of the same name proposed in the same publication by A. F. Foerste, 1924.

2. Foerste, 1924 (*Denison Univ. Bull., Sci. Lab. J.* **20** : 253–4) formally proposed the nominal genus *Westenoceras* and designated as type-species *Cyrtoceras manitobense* Whiteaves, 1890 (*Proc. Trans. roy. Soc. Canada* **7**(4) : 80) of the Ordovician of Manitoba, Canada. However, in his Introduction (: 196), Foerste said " Finally, the genera *Westonoceras* and *Cyrtogomphoceras* are here proposed for the very aberrant species, *Cyrtoceras manitobense* Whiteaves and *Oncoceras magnum* Whiteaves ".

3. It is thus evident that the names *Westonoceras* and *Westenoceras* were proposed for the same species in the same publication. The detailed description was published under *Westenoceras* only. No derivation of the name was indicated.

4. The spelling *Westenoceras* was used again by Foerste, 1926 (*Denison Univ. Bull., Sci. Lab. J.* **21** : 331), by Troedsson, 1926 (*Medd. om Grønl.* **71** : 90) and by Foerste & Savage, 1927 (*Denison Univ. Bull., Sci. Lab. J.* **22** : 54). In 1928, however, (*Michigan Univ., geol. Mus. Contrib.* **2**(3) : 48) Foerste used the spelling *Westonoceras* for what was obviously a species of the same genus, and he adopted the same spelling in 1929 (*Denison Univ. Bull., Sci. Lab. J.* **24** : 219) and 1930 (*ibid.* **24** : 312). Furthermore, in 1930 Foerste & Teichert (*ibid.* **25** : 280) explained that Foerste had intended to name this genus after one T. C. Weston.

5. Between 1930 and 1952 the name *Westonoceras* was generally used (by Foerste, Teichert, Strand, Flower, Flower & Kummel) in all papers dealing with species belonging to this genus with the exception of Roy, 1941 (*Field Mus. nat. Hist., geol. Mem.* **2** : 140) and Teichert & Glenister, 1952 (*J. Paleont.* **26** : 744).

6. In the meantime, Teichert, 1933 (*Palaeontographica* **78**, Abt. A : 216) had proposed the family WESTONOCERATIDAE, based on the generic name *Westonoceras* which he then used. This family-name was used by all subsequent authors.

7. The name *Westonoceras* was again used by Teichert & Glenister, 1954 (*Bull. amer. Paleont.* **35** (No. 150) : 150) and by Miller, Youngquist & Collinson, 1954 (*Mem. geol. Soc. Amer.* **62** : 84).

8. From the foregoing, it is clear that *Westenoceras* and *Westonoceras* were two names proposed for the same type-species in the same publication (Foerste, 1924). It is, furthermore, clear that the first subsequent user was

Foerste, 1926, who selected the name *Westenoceras*, and that this name thus became validly established as the spelling to be used for the name of the genus of which the type-species is *Cyrtoceras manitobense* Whiteaves. Nevertheless, when the intention of the author to name this genus after T. C. Weston became known, the name *Westonoceras* was generally adopted in the literature and a family-name was based on it.

9. In view of these facts, and particularly because the stabilisation of the spelling *Westenoceras* would involve emendation of the family-name WESTONOCERATIDAE to WESTENOCERATIDAE (notwithstanding the fact that this name, as published by Teichert in 1933, was based upon the correct spelling of the patronymic in question), the International Commission on Zoological Nomenclature is asked :—

(1) to use its Plenary Powers to direct that of the two original spellings used by Foerste in 1924 for a generic name based upon the surname of the palaeontologist T. C. Weston, the spelling *Westonoceras* be accepted as the valid original spelling and the spelling *Westenoceras* be rejected as an invalid original spelling ;

(2) to place the generic name *Westonoceras* Foerste, 1924 (gender : neuter), type-species, by original designation, *Cyrtoceras manitobense* Whiteaves, 1890 (validated as the valid original spelling of this name under the Plenary Powers in (1) above) on the Official List of Generic Names in Zoology ;

(3) to place the specific name *manitobense* Whiteaves, 1890, as published in the binomen *Cyrtoceras manitobense* (type-species, by original designation, of *Westonoceras* Foerste, 1924) on the Official List of Specific Names in Zoology ;

(4) to place the generic name *Westenoceras* Foerste, 1924 (suppressed as an invalid original spelling of *Westonoceras* under the Plenary Powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(5) to place the family-name *ffi*ESTONOCERATIDAE Teichert, 1933 (type-genus *Westonoceras* Foerste, 1924) on the Official List of Family-group Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE NAME *SACCHARIVORA* PETERKIN, 1790 (*PHALAENA*), AND TO PLACE THE GENERIC NAME *DIATRAEA* GUILDING, 1828, ON THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY (CLASS INSECTA, ORDER LEPIDOPTERA). Z.N.(S.) 1315

By Harold E. Box (*Trinidad, B.W.I.*)

The ultimate aim of the present application is to ensure that the oldest name subjectively available for the type-species of *Diatraea* Guilding (Lepidoptera : PYRALIDAE, CRAMBINAE) shall be *Phalaena saccharalis* Fabricius, 1794.

2. A very considerable literature has accumulated, in the fields of systematic and applied entomology, on the insect concerned, which in its larval stages is a major pest of sugar-cane, maize and other cultivated Gramineae throughout tropical and subtropical America. It has been recorded under the vernacular name " the borer " for one hundred and sixty years, and also as " sugar-cane or sugarcane borer ", " sugar-cane moth borer " in English and American literature ; as " le borer de la canne à sucre " in French ; " Zuckerrohr-bohrer " in German ; " barreno ", " barrenador ", " chupador ", " perforador ", " taladrador " or " el borer de la cana de azúcar " in Spanish speaking countries in Latin America ; and " a broca de cana " in Brazil.

3. The first binominal name given to this insect appears to be that applied by J. Peterkin in 1790. He published "A Description of the Borer, or the *Phalaena saccharivora*, According to the systemae [sic] naturae " in an extremely rare and obscure work entitled "A Treatise on Planting . . . ", a second edition of which was printed at St. Christopher's (St. Kitts) in the British Colony of the Leeward Islands, West Indies.[1] Though there is a brief mention of the existence of Peterkin's description (but without citing the binomen) in a book by Noel Deerr (1921, " Cane Sugar, A Textbook . . . etc.", ed. 2, London : 141, 172)[2] there is no reference to it in any other publication known to me and no transfer of *Phalaena saccharivora* Peterkin to a modern genus has at any time been made. The name appears to have been lost in complete obscurity ever since it was published.

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[1] The title-page in full reads as follows : "A Treatise on Planting, from the Origin of the Semen to Ebullition ; with a correct Mode of Distillation, and a Melioration of The Whole Process Progressively. Dedicated to the Planters of the Leeward Charribbee Islands. The Second Edition Improved. By Joshua Peterkin, Planter.—St. Christopher's. Printed by Edward Luth R Low, Cayon-street, Basseterre, M, DCC, XC."

The only copy known to me is the one in the British Museum Reading Room, London, for tracing which I am deeply obliged to Mr. A. E. V. Barton, C.B.E., Secretary of the West India Committee. Serious efforts to trace the first edition through the principal libraries in the United Kingdom and the U.S.A. to date have failed, but continue. A photostat reproduction of the title-page and pertinent text (Pages 6–10) of the " Treatise ", from the British Museum copy of the second edition, has been presented to the Library of the Royal Entomological Society of London.

[2] Peterkin's " Treatise " is not mentioned in the first edition of Noel Deerr's " Cane sugar . . . ", published at Manchester, 1911.

4. At a meeting of the *Société Philomatique* in Paris, September 1792 (not published, however, until 1803, *Bull. Sci. Soc. philomat.*, Paris **1** : 28) an announcement appeared : " M. Fabricius, correspondant, écrit á la Société qu'il a reçu des Indes Orientales [sic], de M. Rohr de Ste-Croix, deux insectes remarquables. Le premier est une petite phalène, appelée dans les colonies Anglaises *The-Borer* ". To this insect Fabricius applied the binomen *Phalena saccharalis*, followed by a specific diagnosis in Latin. This name (as *Phalaena saccharalis*), the Latin description somewhat modified, and a figure showing the larva, pupa and imago, were published in a paper (in Danish) upon insect pests of sugar-cane and cotton in the West Indies by Fabricius in 1794 (*Skr. naturh. Selsk. Kbh.* **3**(2) : 63–67, Tab. vii) and in the same year almost *verbatim* (but without the figure) in *Ent. syst.* **3**(2) : 238. The year 1794 is therefore the valid date of publication of *saccharalis* Fabricius.

5. In 1798 Fabricius reprinted the description in *Suppl. Ent. syst.* : 469, but he changed the name to *Crambus sacchari*, citing as synonym : " *Phalaena saccharalis*, Ent. Syst. 3(2) : 238, 411 Act. Soc. Hist. Nat Hafn. 3 tab. fig.". *Crambus sacchari* Fabricius, 1798 is therefore a junior objective synonym of *Phalaena saccharalis* Fabricius, 1794, and a junior subjective synonym of *Phalaena saccharivora* Peterkin, 1790.

6. An almost literal German translation of Fabricius's original Danish article in the *Skrifter*, but with the description of *Phalaena saccharalis* retained in Latin, appeared also in 1798 (*Goett. J. Naturw.* **1** : 137–140, pl. III, abb. 1) over the name I. G. L. Blumhof.

7. In 1806, W. Turton (*Gen. Syst. Ent.* **2** : 283) published an English translation of the Fabrician description, referring *saccharalis* F. to *Pyralis* Gmelin. The combination *Pyralis saccharalis* (F.), however, was only occasionally used in the later literature, e.g. P. C. Zeller (1872, *Ent. Ztg. Stettin* **33** : 466 ; 1881, *Hor. Soc. ent. ross.* **16** : 11).

8. In 1828, Lansdown Guilding (*Trans. Soc. Encour. Arts* **46** : 148–149, one plate with eleven figs.) described the same insect from the West Indies (presumably the Island of St. Vincent) giving it the singularly appropriate name *Diatraea sacchari* (" à διατρεω, perforo ") and this name, with Guilding as author, was in current usage for the sugar-cane borer for a number of years, until the identity of the two nominal species described by Fabricius and Guilding respectively became assured. In the legend to Guilding's plate, the generic name is spelled *Diatrea*, but the spelling *Diatraea* was used by Guilding in an abstract of his 1828 paper (1832, *Mag. nat. Hist. J. Zool.* **5** : 466–469), so that he is himself the First Subsequent User of the name. The first author other than Guilding to use the name was Westwood (1833, *Mag. nat. Hist. J. Zool.* **6** : 411) who also adopted the spelling *Diatraea*. This spelling has been used by all subsequent writers with the exception of Grote (see paragraph 12 below).

9. Although it is clear from other evidence in the same work that Guilding knew of Fabricius as an entomologist, there is no evidence that he knew of the names (*Phalaena saccharalis* and *Crambus sacchari*) which Fabricius had published in 1794 and 1798, respectively, for the species which both authors referred to by the same vernacular name of " The Borer ". If it could be concluded that Guilding was aware of these names, then it would follow that

he was citing *Crambus sacchari* Fabricius, 1798 in combination with his new generic name *Diatraea* ; and *Diatraea sacchari* (Fabricius, 1798), Guilding, 1828, would then fall as a junior objective synonym of *Phalaena saccharalis* Fabricius, 1794. It is, however, unlikely that this was the case, for Fabricius's *Ent. syst.* of 1794 (a work in which the name *Phalaena saccharalis* was published) was much better known to the early entomologists than the *Suppl. Ent. syst.* of 1798 (where *Crambus sacchari* appeared), which was frequently overlooked in those times. It must therefore be concluded that Guilding was proposing both a new generic name and a new specific name when he published the binomen *Diatraea sacchari* in 1828.

10. The second of the two alternative views expressed in the foregoing paragraph has been accepted by nearly all authors who have discussed the species, as the following quotations will show :

> Westwood (1840, *Introd. mod. classif. Ins.* **2** : 411) : " The Rev. Lansdown Guilding described an insect . . . under the name of *Diatraea sacchari* . . . This insect, however, evidently is identical with the *Phalaena saccharalis* Fabr.".
>
> Kirby and Spence (1843, *Introd. Entom.*, Ed. 6, **1** : 149) : " This insect . . . has been described by the Rev. L. Guilding . . . under the name of *Diatraea sacchari*, which, however, Mr. Westwood (1840) conceives is identical with *Phalaena saccharalis* Fab.".
>
> Comstock (1881, *Rep. Entom. U.S. Dep. Agric.* **1880** : 240) : " The borer moth was first scientifically described by Fabricius, in 1793 [sic:], as *Pyralis* [sic:] *saccharalis* (*Ent. Syst.*, III, ii, 238) and was afterwards re-described by Rev. Lansdown Guilding . . . as *Diatraea sacchari* . . .".
>
> Howard (1891, *Insect Life* **4** : 95) : " He (Rev. Lansdown Guilding) described the insect as *Diatraea sacchari* . . . ".
>
> Cockerell (1892, *Bull. bot. Dep. Jamaica*, no. **30** : 2) : " Mr. Guilding described the borer as a new genus and species, *Diatraea sacchari* . . .".
>
> Box (1948, *Bol. Ent. venez.* **7** : 47) : " Guilding was a clergyman resident in the island of St. Vincent ; he was also a scholar and an ardent naturalist, and apparently familiar with the works of the older systematists. It is curious, therefore, that he did not know of the work of Fabricius mentioned above, for he elaborated technical generic and specific descriptions, in Latin and English, of the Borer, proposing for it the name *Diatraea sacchari* ".

The same view was expressed in systematic papers by C. H. Fernald (1888, *Ent. Amer.* **4** : 119), J. B. Smith (1891, *List Lepid. Bor. Amer.* : 86), H. Druce (1896, *Biol. Centr.-Amer., Ins. Lep.-Het.* 2 : 295) and myself (1931, *Bull. ent. Res.* **22** : 23 ; 1948, *Bol. Ent. venez.* **7** : 53), and the species was cited in a number of economic works published between 1833 and 1900 as *Diatraea sacchari* Guilding. The only author who is known to have adopted the first of the two views expressed in the preceding paragraph (9) is :

> Ragonot (1895, *Ann. Soc. ent. France* **64** : ccxxii) : " Guilding avait crée, en 1828, le genre *Diatraea* pour l'espèce *saccharalis* Fabr.".

11. It must therefore be accepted that *Diatraea sacchari* Guilding, 1828 is both (a) a junior subjective synonym of *Phalaena saccharalis* Fabricius, 1794, and (b) a junior secondary homonym of *Crambus sacchari* Fabricius, 1798,

itself a junior objective synonym of *Phalaena saccharalis* Fabricius, 1794. Under the revised Code adopted by the Fifteenth International Congress of Zoology, London, 1958, junior secondary homonyms cannot be permanently suppressed, hence no request is now made for the addition of *sacchari* Guilding (*Diatraea*) to the Official Index. Under this Code, the name remains an available name, although it is not the valid name for any known taxon.

12. J. O. Westwood in 1840 (*Introd. mod. classif. Ins.* : 411) and again in 1856 and 1857 (*Gard. Chron.* (No. 27) July 5, 1856 : 453 ; *J. Proc. linn. Soc.* (*Zool.*) **1** : 103) stated his opinion that *D. sacchari* Guilding was identical with *Phalaena saccharalis* F., but he did not make a formal generic transfer. This synonymy was accepted by several other entomological writers in the ensuing years but so far as is known to me it was not until 1881 that the combination *Diatraea saccharalis* (F.) was actually used, when J. H. Comstock applied it to the sugar-cane borer and (with an interrogation) to the cornstalk borer in the United States (1881, *Rep. Ent., U.S. Dep. Agric.* **1880** : 240, 243). This combination was formally recognised by A. R. Grote (1882, *New Check List N. American Moths* : 56 ; wherein the generic name is mis-spelled "*Diaraetria*") and later by C. H. Fernald (1888, *Ent. Amer.* **4** : 119).

13. At this same time, the combination *Chilo saccharalis* (F.), apparently first used by C. V. Riley and L. O. Howard (1888, *Insect Life* **1** : 185), came into vogue in a number of economic papers and was in usage side by side with *Diatraea saccharalis* (F.) during the next ten years, after which the latter name became universally used for the type species of *Diatraea*. Other synonymy concerning this species is not related to the present issue.

14. Between 1881 and 1900 the Fabrician specific name *saccharalis*, prefixed either by *Diatraea* or *Chilo*, had been used in 48 scientific papers by 35 different authors, including such prominent entomologists as Ashmead, Blandford, Busck, Chittenden, Cockerell, Comstock, Coquillett, Druce, Fernald, Grote, Hampson, von Hedemann, Howard, Maxwell-Lefroy, Morgan, Quaintance, Ragonot, Riley, J. B. Smith and Townsend ; and in texts published in the Danish, English, French, German, Portuguese and Spanish languages.

15. Since 1900 the number of scientific papers in which the name *Diatraea saccharalis* is used to designate the common American sugar-cane moth borer amounts to approximately 920 titles, by 260 different authors, and in addition there are more than 200 references to it in the entomological reports of agricultural experiment stations, departments of agriculture and similar institutions throughout the Americas. The said combination has been accepted without question by systematic and economic entomologists in Europe and virtually every country in America from the U.S.A. south to Argentina, including Mexico, Central America and all countries and dependencies in the West Indies.

16. The Committee on Common Names of the American Association of Economic Entomologists and the Entomological Society of America have officially approved the vernacular name "sugarcane borer" for the scientific name *Diatraea saccharalis* (F.) and *vice versa* (1931, *J. econ. Ent.* **24** : 1290, 1298 ; 1937, *id.* **30** : 541, 549 ; 1942, *id.* **35** : 91, 95 ; 1946, *id.* **39** : 436, 441).

17. The evidence leaves no doubt that in accordance with the existing

Rules the well established name *saccharalis* Fabricius requires to be suppressed as a junior subjective synonym of the resurrected name *saccharivora* Peterkin. However, the above summary of usage of the Fabrician name shows equally clearly that such a change would be contrary to the interests of stability and universality and could serve no useful purpose.

18. The present case is exactly covered by the observation of P. Bonnet (1952, *Trans. 9th int. Cong. Ent.* (Amsterdam, 1951) **1** : 196) : " Dans le cas où une espèce ancienne viendrait à être reconnue, et que son nom remplacerait un nom plus récent mais très employé, il faut demander à la Commission de Nomenclature de suspendre dans ce cas là la loi de priorité, pour que le nom utilisé soit maintenu contre le nom jusq'ici inconnu ".

19. The International Commission on Zoological Nomenclature is therefore requested :

(1) to use its Plenary Powers to suppress the specific name *saccharivora* Peterkin, 1790, as published in the binomen *Phalaena saccharivora* for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place the following name on the Official List of Generic Names in Zoology :—*Diatraea* Guilding, 1828 (gender : feminine), type-species by monotypy : *Diatraea sacchari* Guilding, 1828 ;

(3) to place the following name on the Official List of Specific Names in Zoology :—*saccharalis* Fabricius, 1794, as published in the binomen *Phalaena saccharalis* (the oldest name subjectively available, through the use of the Plenary Powers in (1) above, for the type-species of *Diatraea* Guilding, 1828) ;

(4) to place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology :—
  (i) *Diatrea* Guilding, 1828 (gender : feminine) (an Incorrect Original Spelling of *Diatraea* Guilding, 1828) ;
  (ii) *Diaraetria* Grote, 1882 (gender : feminine) (an Erroneous Subsequent Spelling of *Diatraea* Guilding, 1828) ;

(5) to place the following names on the Official Index of Rejected and Invalid Specific Names in Zoology :—
  (i) *saccharivora* Peterkin, 1790, as published in the binomen *Phalaena saccharivora*, suppressed under the Plenary Powers in (1) above ;
  (ii) *sacchari* Fabricius, 1798, as published in the binomen *Crambus sacchari* (a junior objective synonym of *Phalaena saccharalis* Fabricius, 1794).

ACKNOWLEDGMENTS

In the initial preparation of this Application I am grateful for valued advice from Dr. W. J. Hall, C.M.G., late Director, Commonwealth Institute of Entomology, London, and Mr. R. G. Fennah, formerly of the Imperial College of Tropical Agriculture, Trinidad, now Assistant Director, Commonwealth Institute of Entomology.

REQUEST FOR A RULING ON THE INTERPRETATION OF THE NOMINAL SPECIES *UNIO PHILLIPSII* WILLIAMSON, 1836 (CLASS PELECYPODA) IN ACCORDANCE WITH ACCUSTOMED USAGE.

Z.N.(S.) 1398

By J. Weir (*The University, Glasgow, Scotland*)

The purpose of the present application is to stabilise the interpretation of the nominal species *Unio phillipsii* Williamson, 1836 (type-species, by original designation, of the nominal genus *Anthraconauta* Pruvost, 1930) in the sense in which the name has been used for the last sixty-six years. The case is one in which it is impossible to identify the original type-material with sufficient certainty for the selection of a lectotype, and equally impossible to demonstrate its loss or destruction sufficiently to justify the designation of a neotype. The species in question is a non-marine lamellibranch found in abundance at a number of horizons in the Upper Coal Measures (Morganian) of Britain. It is the index-fossil of the zone of *Anthraconauta phillipsii* in that country and of the strata known as Westphalian C (upper part) in Western Europe, and it is found in homotaxially equivalent strata in the Donetz Basin in the Soviet Union. It has considerable stratigraphical and economic importance in all these areas in the location of coal-bearing strata at the surface and in deep borings. Modern taxonomic work has led to the recognition of a number of species closely related to *Anthraconauta phillipsii*, and the point of departure for these advances has been the interpretation given to this species by Wheelton Hind in 1893. It is in that sense that it is now sought to stabilise the interpretation of the species, in the interests of the stratigraphical, taxonomic and economic considerations outlined above.

2. W. C. Williamson (1836, *Phil. Mag.* (3) **9** : 350–351) first described the species (without illustration) as follows, naming it in a conditional manner : " The black bass is literally filled with fragments and perfect shells of a species of *Unio* of small size. It bears a considerable resemblance to Hibbert's *Unio nuciformis* from the Burdiehouse limestone, but is of a less globular form. This shell varies considerably in size, being sometimes one and a half inches in length, and at others not more than three quarters of an inch. The depressed and crushed state in which these fossils are found would indicate a shell of a thin and fragile nature, and such it has doubtless been . . .

My friend Mr. Joshua Alder, of Newcastle, informs me that he has met with an *Unio*, closely resembling our specimens, in the coal strata at the above place. This shell differs from the *U. nuciformis* of Burdiehouse in being broader and wider in proportion to its length, as well as in being a more fragile and delicate shell. I am inclined to think it is an undescribed species ; if so, I would propose the name of *Unio Phillipsii* . . . ".

3. Williamson taught geology and natural history at Owens College (the forerunner of Manchester University) from 1851 to 1892 and his collection is now, and always has been, housed in what is now the Manchester Museum. His paper from which a passage is quoted above is on the Upper Coal Measures of the Manchester District, but it is impossible now to identify specimens in

his collection which were certainly in his hands in 1836. From the context, it appears that he is describing the species in connection with the description of the strata in the Pendlebury district, but no material certainly from that area can now be identified. He seems also to have had specimens from near Ardwick (about seven miles from Pendlebury on the other side of Manchester). No specimens from Newcastle-on-Tyne that could have assisted in the preparation of the descriptions are known in Williamson's collection.

4. It seems clear that Williamson had collected, or had at least seen, many specimens of his *Unio Phillipsii*, all of which would rank equally as syntypes. There are no *a priori* grounds, however, for regarding any specimen as being a " type " in his estimation, and no certain means of identifying any of the original syntypes.

5. Murchison, 1839 (*Silurian System* : 84, fig. C) figured "A shell resembling *Modiola* from Ardwick, near Manchester " and repeated the figure in a later work (*Siluria*) as "*Anthracomya* (*Modiola* Sil. Syst.) from Ardwick, Manchester, in a band of limestone of the same [i.e. Coal Measures] age ". It is almost certain that Murchison had the original of this figure from Williamson, and Jackson (1952, Catalogue Types figd. Species geol. Dept. Manch. Mus. : 79) thought it possible that specimen No. L10106 (discussed more fully below) might have been this specimen. The quality of the drawing neither forbids nor confirms this possibility.

6. The next author to discuss the species was T. R. Jones, 1870 (*Geol. Mag.* **7** : 216–217, pl. ix, part), but his interpretation, apart from being widely different from that currently accepted, is confused. Jones stated (under the heading of "*Anthracomya Phillipsii* Williamson sp.") : " The Molluscan shells referred to above are very numerous, flattened and compressed, in layers. The chief form is similar to Prof. Williamson's *Unio Phillipsii* from the Upper Coal-Measures at Ardwick, near Manchester . . . Fig. 1, Pl. IX represents the *Anthracomya* so abundant in the shales under notice ; specimens like Fig. 18 are rare."

The confusion lies in the fact that, in the Explanation of Plate IX, fig. 1 is said to represent "*Estheria Adamsii* sp. nov.", while fig. 3 is described as "*Anthracomya Phillipsii* Williamson sp., natural size " and fig. 18 as "*Anthracomya* (young of *A. Phillipsii*?) see fig. 3. Mag. 10 diam.". His specimens, which came from South Wales, are not known to exist, and in any case they could only be used to alter drastically the current interpretation of Williamson's species.

7. Jones gave no formal description of the species, but R. Etheridge jun., 1877 (*Geol. Mag.* (2) **4** : 221) described it accurately (as *Anthracomya Phillipsii*) and figured two specimens (pl. xii, figs. 6, 7). The original of the latter, from the " Coal Measures, Ardwick, cabinet of Prof. W. C. Williamson ", is possibly No. L10106 mentioned in paragraph 5 above.

8. The basis of the modern interpretation of the species was laid down by Wheelton Hind in 1893 (*Quart. J. Geol. Soc. London* **49** : 264). He referred to " the loan of Prof. Williamson's type-specimen " and described its illustration (pl. x, fig. 27) as " Type-specimen from Owens College, Manchester ". In 1895 (Monograph of *Carbonicola*, *Anthracomya* and *Naiadites* : 121, *Palaeont. Soc.*)

Hind said " The original type of this species was named by Dr. W. C. Williamson, who obtained his specimen from the *Spirorbis*-limestone shale of Pendlebury . . . ." and continues " I am able to figure this shell in Pl. XVI, fig. 10 ". In the explanation of this figure, however, the locality is given as "Ardwick ". It thus seems clear that the Museum authorities had no doubt about the authenticity of the specimen and that Williamson had indeed regarded it as a morphologically satisfactory and typical example of the species.

9. In 1912, J. W. Jackson (*Geol. Mag.* (5) **9** : 453) correctly noted " The example described and figured by Hind (Manch. Mus. L10106) is labelled on its underside as coming from Ardwick and the matrix is a red shale, whereas Williamson in his original diagnosis . . . gives the *Spirorbis* limestone shale of Pendlebury as the horizon and locality whence Dr. C. Phillips obtained the specimens on which the species appears to have been founded. The Ardwick specimen, therefore, can only be regarded as the original of Hind's figures and not as the type specimen.". It has already been said in paragraph 3 above that Williamson may have had specimens from more than one locality.

10. In 1930 Pruvost (*Mém. Mus. Hist. nat. Belg.* **44** : 247) proposed the genus *Anthraconauta* to contain certain species hitherto placed in *Anthracomya* Salter (*non* Rondani) and designated the type-species as follows : " Espèce génotype *Anthraconauta Phillipsi* Williams." [*sic*]. He treated the generic name as feminine by citing "*Anthraconauta belgica* Hind " (first described as a species of *Anthracomya*) and "*Anthraconauta minima* Ludwig " (first described as a species of *Anodonta*). Professor L. W. Grensted, Consulting Classical Adviser to the Commission, points out, however, that the generic name, which is a compound word ending in the Latin masculine noun nauta, is indisputably masculine by reference to any rule governing the gender of compound names of classical origin.

11. In 1931, Dix & Trueman (*Quart. J. Geol. Soc. London* **87** : 186, text-fig. 3, pl. xvii, figs. 1a, 1b) spoke of Manchester Museum L10106 as the " holotype " of Williamson's species. Their paper is a thorough study on modern lines of the group of species to which *Anthraconauta phillipsii* belongs and is still in some respects the standard work on the subject. Jackson, 1952 (*op. cit.* : 79) again cited the specimen as the " holotype " of the species.

12. I am at present engaged in seeing through the press that part of a Monograph of the British Carboniferous non-marine Lamellibranchia (begun by the late Sir Arthur Trueman and myself in 1946 and published by the Palaeontographical Society) which deals with the genus *Anthraconauta*. I wish to interpret the type species of that genus in accordance with the usage initiated by Etheridge in 1877, confirmed by Hind in 1893 and 1895, and firmly established by Dix & Trueman in 1931. This usage has been followed by many other authors in Europe and the U.S.S.R. in stratigraphical studies and in Memoirs of the Geological Survey of Great Britain, and it has guided the identification of many hundreds of specimens in collections. I wish also to see the generic name *Anthraconauta*, as defined by the type species interpreted as indicated, placed on the Official List of Generic Names in Zoology.

13. The genus *Anthraconauta* is currently placed in the family MYALINIDAE and no family-group name problems arise in the present case.

14. I therefore ask the International Commission on Zoological Nomenclature :

(1) to give a ruling that the nominal species *Unio phillipsii* Williamson, 1836 is to be interpreted by reference to specimen No. L10106 in the Geological Department of the Manchester Museum, England ;

(2) to place the generic name *Anthraconauta* Pruvost, 1930 (gender : masculine), type-species, by original designation, *Unio phillipsii* Williamson, 1836 on the Official List of Generic Names in Zoology ;

(3) to place the specific name *phillipsii* Williamson, 1836 (as published in the binomen *Unio phillipsii*) (type species, by original designation, of *Anthraconauta* Pruvost, 1930) on the Official List of Specific Names in Zoology.

SUPPORT FOR THE REQUEST BY DR. J. WEIR FOR A RULING ON THE INTERPRETATION OF THE NOMINAL SPECIES *UNIO PHILLIPSII* WILLIAMSON IN ACCORDANCE WITH ACCUSTOMED USAGE. Z.N.(S.) 1398

By R. M. C. Eagar (*The Manchester Museum, Manchester, England*)

Since 1945 I have been in charge of the geological collections in the Manchester Museum. Amongst them I have found several slabs with numerous specimens of *Anthraconauta phillipsii* (Williamson), all but one (L.12049D) having been labelled as coming from Ardwick. The handwriting on the attached labels suggests the possibility that all these slabs, including the unlocalised L.12049D, may have been in the hands of W. C. Williamson at an early date, possibly in 1836. None of the specimens, however, closely fits any figures of the species published before 1893. Nor is preservation, nor degree of completeness, so satisfactory amongst these specimens as in that registered as L10106 and labelled, possibly by E. W. Binney, as "*Anthracomya phillipsii* Owens College, Manchester. Type Specimen ". This latter shell, in my opinion, could be the original of the stylised drawing in Murchison's " Siurian System ", p. 84, Fig. C (1839), although perhaps it is worth pointing out that the matrix of L.10106 is a pink mudstone, whereas Murchison, repeating the figure in his *Siluria*, refers to it as coming from a band of limestone (see the foregoing Application, p. 62). I think there can be no reasonable doubt that L.10106 is the original of R. Etheridge jun., 1877, pl. xii, fig. 7.

In short, although more Manchester Museum specimens than L.10106 may have been available to Williamson in 1836, or shortly before this time, and although there can be no certainty that even this specimen was in his collections then, there is no reason to suppose that any one of these specimens is a more authentic syntype than L.10106. Moreover none is so well preserved, nor so useful for stabilising the interpretation of the species *Anthraconauta phillipsii*, as this much-figured shell. For these reasons I wish fully to support Dr. Weir's application to the International Commission for a ruling on the nominal species *Unio phillipsii* Williamson ; that the species be interpreted by reference to the specimen L.10106 in the Geological Department of the Manchester Museum ; that the generic name *Anthraconauta* Pruvost, 1930, with type species by original designation *Unio phillipsii* Williamson, 1836, be placed on the Official List of Generic Names in Zoology, and that the specific name *phillipsii* Williamson be placed on the Official List of Specific Names in Zoology.

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29 DEC 1959
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The Official Organ of

THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

R. V. MELVILLE

Assistant Secretary to the International Commission on Zoological Nomenclature

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 17, Triple Part 3–5 (pp. 65–160) 15*th December*, 1959

An Editorial Note

By the time this issue of the Bulletin is published, another change will have taken place in the affairs of the Commission. Mr. R. V. Melville, whose services the Commission was so fortunately able to secure, through the action of the International Trust for Zoological Nomenclature, when Mr. Hemming found himself unable to carry on through ill-health, returned to the Geological Survey on 1 November. On him fell the full burden of the final preparations for the Colloquium, the Colloquium itself and the subsequent task of reducing its findings to a form presentable to the Editorial Committee appointed to prepare the revised Code of Nomenclature. Between times he has also found opportunity, as is evidenced by this issue of the Bulletin, and previous parts of the same volume, to continue the regular work of preparing cases for the consideration of the Commission and the rendering of their Opinions. It is gratifying to have Mr. Melville's assurance that, although his formal link with the Commission is now severed, his willing co-operation will still be available. In particular he will be supervising the final stages in the presentation of the revised Code.

The Editorial Committee appointed by the Fifteenth International Zoological Congress was enabled, through a grant of 6,000 Swiss francs made available to it by the International Union of Biological Sciences through the kind offices of Professor Baer, to meet in London. Composed of Dr. Stoll (Chairman) and Mr. Sabrosky (U.S.A.), M. Forest and M. Dollfus (France), and Messrs. C. W. Wright and N. D. Riley (U.K.) with Mr. Melville as secretary, the Committee started work on Sunday, 17 May. It had before it an English draft prepared by Mr. Melville and a parallel French draft prepared by M. Forest, together with detailed comments thereon by Dr. Stoll and Mr. Sabrosky. By working very long hours it completed its task late on Monday, 25 May. Subsequent work has been conducted by post and has been concerned solely with minor points of phraseology, presentation, etc. The text was sent to the printer on 29 October. Proofs will be circulated to Commissioners as soon as available, under the three months rule, and it is hoped that publication (French and English texts simultaneously on facing pages) should be possible by about the middle of 1960.

In furtherance of the instructions of the London Congress of July 1958, the Commission's officers and the International Trust for Zoological Nomenclature have given careful consideration to ways and means of simplifying the style, and reducing the cost, of the Commission's publications. The elimination from the Opinions of all matter published previously on the case in question would so far reduce the bulk of many of the Opinions that it would be uneconomic to maintain the Opinions and Declarations series as a separate Serial. It was thought that users of the publications would wish to have the Opinions paged separately from the applications even though merged in a single Bulletin, so that they could be bound up on the completion of the volume either separately from the applications although still in the same cover, or as a separate book. Proposals on these lines were submitted to the Commission in April 1959, and were approved by 22 votes, with 4 abstentions, and one qualified dissent. In practice, however, it is proving difficult to follow this plan, for technical reasons. It is proposed therefore to publish Opinions as and when they are ready, together with applications, in normal Bulletin parts, and the increased flexibility thus gained should reduce costs and allow a smoother and quicker flow of publication of both applications and decisions.

It will have been noticed that the Trustees of the British Museum (Natural History) have been so kind as to make office accommodation available for the Commission's small staff. They have now placed the Commission further in their debt by permitting Dr. W. E. China to take over from Mr. Melville the duties of Assistant Secretary to the Commission, as from 2 November 1959. Dr. China is at present Keeper of the Department of Entomology in the British Museum (Natural History), and has already commenced work on some of the early cases still awaiting presentation and decision.

This brief report must, unfortunately, end on a note of regret. Commissioner Professor F. S. Bodenheimer died in London on 4 October after a short illness. Commissioner Professor Béla Hankó died suddenly in Toronto on 16 November. Obituary notices will be published later.

N. D. RILEY
Hon. Secretary to the
International Commission on
Zoological Nomenclature

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the plenary powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* :—

(1) Designation of a type-species for the nominal genus *Bolitochara* Mannerheim, 1831 (Class Insecta, Order Coleoptera). Z.N.(S.) 243 ;

(2) Designation of type-species for the nominal genera *Ischnopoda* Stephens, 1835 and *Tachyusa* Erichson, 1837 (Class Insecta, Order Coleoptera). Z.N.(S.) 244 ;

(3) Suppression of the generic name *Southernia* Filipjev, 1927 (Class Nematoda). Z.N.(S.) 940.

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
1*st October*, 1959.

W. E. CHINA
Assistant Secretary
International Commission on
Zoological Nomenclature

COMMENTS ON PROPOSALS RELATING TO *BERAEA* STEPHENS, 1833 (Z.N.(S.) 395); *CHAETOPTERYX* STEPHENS, 1829 (Z.N.(S.) 426); AND *APATANIA* KOLENATI, 1847 (Z.N.(S.) 427)

(see this volume, pages 32–38)

By D. C. Denning (*Moraga, California, U.S.A.*)

I concur in his proposals regarding the generic name: *Chaetopteryx* and *Phacopteryx*; to designate *wallengreni* type-species of *Apatania*; to designate *maurus* type-species of *Beraea*, and urge the Commission to accept all the proposals made by Dr. Kimmins.

By L. Botosáneann (*Institutul de Speologie al R.P.R., Bucarest*)

En étudiant avec attention ces trois notes, je suis arrivé à la conclusion que les opinions de M. Kimmins son entièrement fondées. Je suis trichoptérologiste et je puis pleinement m'en rendre compte. J'espère que la International Commission on Zoological Nomenclature usera de ses Pouvoirs Pléniers pour faire adopter les propositions contenues dans les trois notes mentionnées.

By Ernst Mayr (*Museum of Comparative Zoology, Harvard College, Cambridge, Mass., U.S.A.*)

I would like to make an alternative proposal for Z.N.(S.) 395 which will not alter the object of the proposal but only the method of achieving it. The basic object of the proposal is to stabilize the important genus *Beraea* of which quite unambiguously *T. pygmaea* Fabricius is the type-species. The Fabrician name is essentially equivalent to hundreds if not thousands given at that period. The diagnosis was considered adequate for its day. Indeed, Fabricius was perhaps the world's leading animal taxonomist of his day. Yet, in view of many subsequently discovered species his diagnosis is no longer adequate. A type-specimen is needed for unequivocal identification. I doubt that it is proper to call Fabricius's name a *nomen dubium* in the sense in which this term is usually employed in the literature. The danger is that this might make most of the older names *nomina dubia*. The proposal before us has the further weakness that it bases the type designation for the genus *Beraea* on the subjective identification of *maurus* with *pygmaea*. It seems to me that a far simpler, less arbitrary, solution would be simply to designate a neotype for *T. pygmaea* provided *pygmaea* had not become a *nomen oblitum*. If the type of *maurus* is still in existence, otherwise the whole proposal before us would make no sense, I suggest that this type-specimen be designated the neotype of *T. pygmaea*. It would seem to me that the advantages of this proposal over that of Mr. Kimmins are evident.

By D. E. Kimmins, (*British Museum (Natural History), London*)

I cannot, at the moment, give a definite answer about the existence of the type of *maurus* Curtis. The Curtis Collection of British Insects is oddly enough not in this country but on the opposite side of the globe, in the Melbourne Museum. It will therefore be necessary to apply for the loan of all the specimens labelled *Thya maurus* in that collection and from them select and designate one as the lectotype of *Thya maurus* and neotype of *Beraea pygmaea* Fabricius. I trust that such action (if the loan of the specimens is granted) will not in any way affect the various sections of paragraph 8 of my application to the International Commission.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE NOMINAL GENUS *BOLITOCHARA* MANNERHEIM, 1831, IN HARMONY WITH ACCUSTOMED USAGE (CLASS INSECTA, ORDER COLEOPTERA). Z.N.(S.) 243

By C. E. Tottenham (*University Museum of Zoology, Cambridge, England*)

The nominal genus *Bolitochara* was established by Mannerheim, 1831 (*Mém. Acad. imp. Sci. St. Pétersb.* 1(5) : 489) to include 57 species which have subsequently been distributed amongst numerous genera. The first two species cited by Mannerheim were *Staphylinus collaris* Paykull, 1789 (*Mon. Staph.* : 50) and *Staphylinus lunulatus* Paykull (*ibid.* : 58).

2. Westwood, 1838 (*Introd. mod. Classif. Ins.* (Synopsis) : 20) designated *Aleochara collaris* Gravenhorst (i.e. *Staphylinus collaris* Paykull) as the type-species of *Bolitochara*. This is a valid type designation, but if it be accepted, then the well-known generic name *Zyras* Stephens, 1835, becomes a junior synonym of *Bolitochara* Mannerheim, 1831, and the latter name would replace the former for a group of insects to which it has never been applied since 1837. Although the name *Bolitochara* has been consistently used since that date for a small genus of insects, including *Staphylinus lunulatus* Paykull, the transfer of the name to another genus would not cause confusion here, for the genus is small and the subgeneric name *Ditropalia* Casey, 1906, is available to replace the generic name, although a new name would have to be formed for *Bolitochara* s.str. The transfer of the name *Bolitochara*, however, to the well-known genus *Zyras* Stephens is open to the strongest objection. *Zyras* is a very large genus, it has a wide distribution, and since the species are generally associated with other insects, e.g. Hymenoptera (Formicoidea) and Isoptera, confusion is likely to be caused in a far wider field of literature than the literature of Coleoptera alone.

3. The species described as *Staphylinus lunulatus* by Paykull in 1789, with a reference to Linnaeus, is not the same insect as *Staphylinus lunulatus* Linnaeus, 1767 (*Syst. Nat.* (ed. 12) 1(2) : 684). Paykull's species therefore requires a valid name. The oldest available name for it is *Aleochara pulchra* Gravenhorst, 1806 (*Mon. Col. micr.* : 164). It is recommended that the plenary powers be used to set aside Westwood's original type-designation and to designate this species as the type-species of *Bolitochara* Mannerheim, 1831, and at the same time to place the generic name *Zyras* Stephens, 1835 (*Ill. brit. Ent.* (Mand.) 5 : 430) (type-species, by monotypy, *Aleochara haworthi* Stephens, 1832 (*ibid.* : 126) on the Official List of Generic Names in Zoology.

4. The genera *Bolitochara* Mannerheim (as defined in paragraph 3 above in harmony with general usage) and *Zyras* Stephens are both referred to the family STAPHYLINIDAE, subfamily ALEOCHARINAE ; the former is in the tribe BOLITOCHARINI, subtribe BOLITOCHARAE, and the latter is in the tribe MYRMEDONIINI, subtribe MYRMEDONIAE. The only family-group name, therefore, involved is BOLITOCHARINI. This was first published by Thomson, 1859

(*Skand. Col.* **1** : 31) in the form BOLITOCHARIDES. It has also been used by Mulsant & Rey, 1871 (*Ann. Soc. linn. Lyon* (n.s.) **19** (1872) : 91) in the form BOLITOCHAIRES and again (*ibid.* : 92) in the form BOLITOCHARATES and by Sharp, 1883,(*Biol. centr-Amer.* **1**(2) : 240) in the form BOLITOCHARINA.

5. The following erroneous spellings of *Bolitochara* and *Zyras* are to be found, and it is proposed that these should be placed on the Official Index of Rejected and Invalid Generic Names in Zoology : *Balitochara* Hamilton, 1894, *Trans. Amer. ent. Soc.* **21** : 365 ; *Boletochara* Westwood, 1838, *Introd. mod. Classif. Ins.* (Synopsis) : 20 ; *Bolitachara* Mulsant & Rey, 1872, *Ann. Soc. linn. Lyon* (2) **19**: 215; *Bolithochara* Laporte, 1835, *Etudes ent.* : 136 ; *Bolitophaga* Mulsant & Rey, 1874, *Ann. Soc. agric. Lyon* (4) **6** : 295 ; *Bolotochara* Mulsant & Rey, 1872, *Hist. nat. Col. France* (Brév., Aléo.) : 210 ; *Lyrus* Brullé, 1837, *Hist. nat. Ins.* **6** (Col. 3) : 108 ; *Zyrus* Cameron, 1939, *Fauna Brit. Ind.*, Col. Staph. 4(2) : 688.

6. I therefore ask the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers to set aside all designations of type-species for the nominal genus *Bolitochara* Mannerheim, 1831, prior to the Ruling now sought and to designate *Aleochara pulchra* Gravenhorst, 1806 (=*Staphylinus lunulatus* Linnaeus of Paykull *nec* Linnaeus) as the type-species of the genus ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :

  (a) *Bolitochara* Mannerheim, 1831 (gender : feminine), type-species, by designation under the plenary powers in (1) above : *Aleochara pulchra* Gravenhorst, 1806 ;

  (b) *Zyras* Stephens, 1835 (gender : masculine), type-species by monotypy : *Aleochara haworthi* Stephens, 1832 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :

  (a) *pulchra* Gravenhorst, 1806, as published in the binomen *Aleochara pulchra* (specific name of type-species of *Bolitochara* Mannerheim, 1831) ;

  (b) *haworthi* Stephens, 1832, as published in the binomen *Aleochara haworthi* (specific name of type-species of *Zyras* Stephens, 1835) ;

(4) to place the following name on the Official List of Family-Group Names in Zoology : BOLITOCHARINI (correction of BOLITOCHARIDES) Thomson, 1859 (type-genus : *Bolitochara* Mannerheim, 1831) ;

(5) to place the eight erroneous subsequent spellings of *Bolitochara* and *Zyras* specified in paragraph 5 above on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(6) to place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :

  (a) BOLITOCHARIDES Thomson, 1859 (type-genus *Bolitochara* Mannerheim, 1831) (an incorrect original spelling for BOLITOCHARINI) ;

  (b) BOLITOCHARINA Sharp, 1883 (type-genus *Bolitochara* Mannerheim, 1831) (an erroneous subsequent spelling for BOLITOCHARINI) ;

(c) BOLITOCHAIRES Mulsant & Rey, 1871 (type-genus *Bolitochara* Mannerheim, 1831) (an erroneous subsequent [vernacular] spelling for BOLITOCHARINI);

(d) BOLITOCHARATES Mulsant & Rey, 1871 (type-genus *Bolitochara* Mannerheim, 1831) (an erroneous subsequent [vernacular] spelling for BOLITOCHARINI).

COMMENT ON THE PROPOSED USE OF THE PLENARY POWERS TO STABILISE THE GENERIC NAME *ORTHOCERAS* BRUGUIERE, 1789. Z.N.(S.) 44

(see this volume, pages 9–24)

By A. H. Smout (*Iraq Petroleum Company, London*)

Thank you for the separate on Orthoceras. Your proposals have my support. I am glad to see that you have been able to reconcile the practical needs with the Rules to such a large extent and have avoided interference with foraminiferal genera.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE TYPE-SPECIES FOR THE NOMINAL GENERA *ISCHNOPODA* STEPHENS, 1835 AND *TACHYUSA* ERICHSON, 1837, IN HARMONY WITH CURRENT USAGE (CLASS INSECTA, ORDER COLEOPTERA).

Z.N.(S.) 244

By C. E. Tottenham (*Museum of Zoology, University of Cambridge, England*)

The nominal genus *Ischnopoda* was established by Stephens, 1835 (*Ill. Brit. Ent.* (Mand.) 5 : 430) with a reference to : 110 for the species included in the genus. These were *Aleochara aterrima* Gravenhorst, 1802 (*Col. micr. Brunsv.* : 83), *Staphylinus leucopus* Marsham, 1802 (*Coleopt. Brit.* : 506), *Staphylinus attenuatus* Marsham, 1802 ? and five undescribed species attributed to " Kirby MSS.". The only species eligible for selection as type-species are *Aleochara aterrima* Gravenhorst and *Staphylinus leucopus* Marsham, 1802, for *S. attenuatus* Marsham was only doubtfully referred to the genus and the other species were at that time based on *nomina nuda*.

2. Westwood, 1840 (*Introd. mod. Classif. Ins., Synopsis* : 19) designated *Aleochara aterrima* Gravenhorst as the type-species of *Ischnopoda* and this is the oldest valid type selection. It is clear, however, from the characters given by Stephens for separating *Ischnopoda* from the other species then included in *Aleochara* that he intended the genus for a group of species far removed from the true *A. aterrima*, and this is further shown by the descriptions of the species included in *Ischnopoda*. It is also clear that the species he determined as *aterrima* was in fact *Aleochara atra* Gravenhorst, 1806 (*Mon. Coleopt. micr.* : 162), as has been recognised by later authors in their synonymies. This species is type-species of *Tachyusa* Erichson, 1837 (*Käf. Mark Brandenb.* 1 : 307) by selection by Shuckard, 1839 (*El. brit. Ent.* 1 : 140), while the true *aterrima* is now placed in the genus *Atheta* Thomson, 1858 (*Ofvers. K. svensk. Vetensk.-Akad. Förhandl.*, Stockholm 15 : 36), of which the type-species, by monotypy, is *Aleochara graminicola* Gravenhorst, 1806 (*Mon. Coleopt. micr.* : 176), and is the type-species, by monotypy, of the subgenus *Acrotona* Thomson, 1859.

3. If it be assumed, under the Rules, that Westwood has correctly identified the insect which he designated as type-species, namely, *Aleochara aterrima* Gravenhorst, then *Ischnopoda* Stephens, being the senior name, would become the valid name for *Acrotona* Thomson, 1859, and furthermore, if *Acrotona* Thomson is only given subgeneric status, as has usually been done, then also *Ischnopoda* Stephens would become the valid name for *Atheta* Thomson. *Atheta* is an exceedingly large genus with a great number of subgenera and it is a matter of opinion whether some of these should be regarded as genera. There is little or no confusion, however, among the names used for these subgenera, but the size of the genus and the close similarity of many of its species already present sufficient difficulties. It would be a pity to add to

these difficulties by making avoidable nomenclatorial changes.

4. There are thus strong taxonomic reasons for rejecting Westwood's type designation as a source of confusion. The next author to select a type-species for *Ischnopoda* was Thomson, 1859 (*Skand. Col.* **1** : 35), who designated *Staphylinus leucopus* Marsham, 1802. This species is referred to the genus *Tachyusa* Erichson, 1837, which would therefore be replaced by *Ischnopoda* if this selection were adopted. The same result would follow if the species intended by Stephens when he cited *Aleochara aterrima* Gravenhorst were designated, for this species (*A. atra*) is the type-species of *Tachyusa* (see paragraph 2 above). This change would not produce much confusion, for *Tachyusa* is a small genus, with only a small number of subgenera ; there is already some confusion among these subgeneric names and a change of the generic name would be quite a small matter. Moreover, *Ischnopoda* has been cited in the synonymy of *Tachyusa* and even (incorrectly) as a subgenus of it. The question is whether Westwood's type designation is to be taken in its literal sense as referring to the true *Aleochara aterrima* Gravenhorst, a species not included by Stephens in his genus except erroneously by name, or whether it is to be taken, as undoubtedly intended, as referring to the insect placed in the genus by Stephens under that name, namely, *Aleochara atra* Gravenhorst. The latter course would maintain to some extent existing usage, for it would mean the application of the name *Ischnopoda* either to the whole group of insects included by Stephens, or to a small section of them, as has been done for more than 100 years. Such authors as have divided the genus into two genera, namely, Mulsant and Rey, 1873 and Reitter, 1909 (i.e. into *Ischnopoda* and *Tachyusa*) have included the species *Aleochara atra* Gravenhorst in the former, but in the subgenus *Thinonoma* Thomson, and not in *Ischnopoda* s.str.

5. Thomson (1850, *Skand. Col.* **1** : 35) divided the species for which *Ischnopoda* and *Tachyusa* had been proposed into three genera, namely, *Thinonoma* Thomson (type-species, by monotypy, *Aleochara atra* Gravenhorst), *Ischnopoda* Stephens, 1835 (for which he designated *Staphylinus leucopus* Marsham, 1802, as type-species) and *Tachyusa* Erichson, 1837 (for which he cited *Tachyusa constricta* Erichson, 1837, as type-species). The effect of this division is that *Tachyusa* Erichson, 1837, and *Thinonoma* Thomson, 1859, are objective synonyms, having the same type-species *Aleochara atra* Gravenhorst. Furthermore, if it be assumed that the type-species of *Ischnopoda* Stephens is the insect undoubtedly intended by Westwood when he cited as type *Aleochara aterrima* Gravenhorst, namely, *Aleochara atra* Gravenhorst (=*Aleochara aterrima* Gravenhorst of Stephens *nec* Gravenhorst), then both the generic names named above become junior objective synonyms of *Ischnopoda* Stephens. Nevertheless, most subsequent authors have followed Thomson's misuse of *Ischnopoda* and *Tachyusa*.

6. In 1939, having recognised the misapplication of these generic names, I proposed the new subgenus *Pischnopoda*, with type-species *Staphylinus leucopus* Marsham, 1802, for *Ischnopoda* Thomson, *non* Stephens (*Proc. roy. ent. Soc. Lond.* (B) **8** : 226) and in 1945 (*ibid.* (B) **14** : 70) the subgenus *Chyusata*, with type-species *Tachyusa constricta* Erichson, 1837, for *Tachyusa* Thomson, *non* Erichson. In 1949 (*Generic Names brit. Ins.* (9), Staphylinidae : 445–447),

I set out a case asking the International Commission to designate *Aleochara atra* Gravenhorst as the type-species of *Ischnopoda*. This would have involved the rejection of *Tachyusa* as a junior objective synonym and the transfer of *Ischnopoda* to a subgenus to which it has never been applied. In the light of the present discussion, however, it seems to me that current usage would be best preserved and confusion avoided, if Thomson's invalid type designations are confirmed. This involves the corollaries set out below.

7. No family-group names have been based on the generic names involved in this case, for all of the genera concerned are referred to the family STAPHYLINIDAE, subfamily ALEOCHARINAE.

8. I therefore ask the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers :
  (a) to set aside all designation of type-species for the nominal genera *Ischnopoda* Stephens, 1835 and *Tachyusa* Erichson, 1837 made prior to the ruling now asked for ;
  (b) to designate *Staphylinus leucopus* Marsham, 1802 as the type-species of *Ischnopoda* Stephens, 1835 ;
  (c) to designate *Tachyusa constricta* Erichson, 1837 as the type-species of *Tachyusa* Erichson, 1835.

(2) to add the following generic names to the Official List of Generic Names in Zoology :
  (a) *Ischnopoda* Stephens, 1835 (gender : feminine), type-species, by designation under the plenary powers in (1)(b) above, *Staphylinus leucopus* Marsham, 1802 ;
  (b) *Tachyusa* Erichson, 1837 (gender : feminine), type-species, by designation under the plenary powers in (1)(c) above, *Tachyusa constricta* Erichson, 1837 ;
  (c) *Thinonoma* Thomson, 1859 (gender : feminine), type-species, by monotypy, *Aleochara atra* Gravenhorst, 1806 ;
  (d) *Atheta* Thomson, 1858 (gender : feminine), type-species, by monotypy, *Aleochara graminicola* Gravenhorst, 1806 ;
  (e) *Acrotona* Thomson, 1859 (gender : feminine), type-species, by monotypy, *Aleochara aterrima* Gravenhorst, 1802 ;

(3) to add the following names to the Official List of Specific Names in Zoology :
  (a) *leucopus* Marsham, 1802, as published in the binomen *Staphylinus leucopus* (specific name of type-species of *Ischnopoda* Stephens, 1835) ;
  (b) *constricta* Erichson, 1837, as published in the binomen *Tachyusa constricta* (specific name of type-species of *Tachyusa* Erichson, 1837) ;
  (c) *atra* Gravenhorst, 1806, as published in the binomen *Aleochara atra* (specific name of type-species of *Thinonoma* Thomson, 1859) ;
  (d) *graminicola* Gravenhorst, 1806, as published in the binomen *Aleochara graminicola* (specific name of type-species of *Atheta* Thomson, 1858) ;

   (e) *aterrima* Gravenhorst, 1802, as published in the binomen *Aleochara aterrima* (specific name of type-species of *Acrotona* Thomson, 1859);

(4) to place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology:
   (a) *Pischnopoda* Tottenham, 1939, a junior objective synonym of *Ischnopoda* Stephens, 1835, as here defined;
   (b) *Chyusata* Tottenham, 1945, a junior objective synonym of *Tachyusa* Erichson, 1837, as here defined.

COMMENT ON REQUEST FOR A RULING ON THE INTERPRETATION OF THE NOMINAL SPECIES *UNIO PHILLIPSII* WILLIAMSON, 1836. Z.N.(S.) 1398.

(see this volume, pages 61–64)

By M. A. Calver (*Geological Survey & Museum, London*)

I wish to support the application by Dr. J. Weir, The University, Glasgow, Scotland, to stabilise the interpretation of *Unio phillipsii* Williamson, 1836, on the grounds that the name has been widely used in Coal Measures literature for a considerable number of years and revised interpretation would lead to much confusion. In the interests of nomenclatorial stability I recommend that the name should be interpreted in the manner suggested by Dr. J. Weir.

COMMENT ON THE USE OF THE PLENARY POWERS TO SUPPRESS THE SPECIFIC NAME *SACCHARIVORA* PETERKIN, 1790 (*PHALAENA*). Z.N.(S.) 1315

By T. W. Kirkpatrick (*Imperial College of Tropical Agriculture, St. Augustine, Trinidad, W.I.*)

Reference *Bull. zool. Nomencl.* Vol. 17, pp. 56–60, I very strongly support the proposals contained in paragraph 19.

PROPOSAL TO STABILISE THE SCIENTIFIC NAME OF THE CEREAL-ROOT EELWORM (CLASS NEMATODA). Z.N.(S.) 375.

By Mary T. Franklin (*Rothamsted Experimental Station, Harpenden, England*); G. Thorne (*University of Wisconsin, Madison, Wisconsin, U.S.A.*); and M. Oostenbrink (*Landbouwhogschool, Wageningen, Netherlands*)

The object of the present application is to stabilise the nomenclature of the cereal-root eelworm, a widespread species of great economic importance which is now known by two different names in different countries.

2. The Nematode genus *Heterodera* A. Schmidt, 1871* contains several species, all of them parasitic on the roots of plants, and all having a cystic stage in the life-history. They were at one time considered to be a single species, *H. schachtii* A. Schmidt, 1871, mainly parasitising sugar-beet, but having biologic races on other crop plants, notably (in the present connection) on cereals.

3. From time to time workers in this subject have raised one or other of the biologic races of *H. schachtii* to the rank of variety, subspecies or species, but these opinions were not generally accepted until one of us (M.T.F.) in 1940 described slight morphological differences between three of these races and raised them to specific rank under the names *H. major* O. Schmidt (the cereal "race"), *H. rostochiensis* Wollenweber (the potato "race") and *H. goettingiana* Liebscher (the pea "race"). The splitting of the wider concept of *H. schachtii* is now generally accepted among nematologists, but there is a lack of uniformity of usage in the name applied to the cereal-root eelworm. American, Canadian, Dutch, German, Israeli, Russian and some Italian authors use the specific name *avenae* for this pest, while British, Danish, Japanese and other German and Italian authors use the specific name *major* O. Schmidt, 1930. The analysis of usage since 1940 given in Appendix I to the present paper shows that the specific name *major* has been used in 44 works and the specific name *avenae* in 21 works published in the period reviewed, and that usage is divided cleanly on national grounds except that some Italian and German authors use one name and some the other.

4. German and Danish workers were the first to recognise that the cyst-forming *Heterodera* which damaged cereals behaved differently from other known forms of the genus, especially from the beet eelworm, *H. schachtii* (see Voigt, 1892; Hansen, 1904). Voigt recorded morphological differences between the "Hafernematode" and the "Rübennematode" which enabled him to distinguish between the two taxa, but he did not publish a name for the former. In Danish publications, occurrences of the oat eelworm ("Havreaal") were frequently reported from 1895 onwards and Mortensen, Rostrup &

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* The generic name *Heterodera* A. Schmidt, 1871 was added to the Official List of Generic Names in Zoology in Opinion 104 and the specific name *schachtii* A. Schmidt, 1871 to the Official List of Specific Names in Zoology in Direction 77.

Kølpin Ravn (1908, *Tidsskr. Landbr. Planteavl*, **15** : 145–158, see p. 151) were the first to use for it the name *Heterodera schachtii* var. *avenae*, but they gave only a record of the occurrence of the worm without any description. The oat eelworm had in fact been described by Hansen in the same Journal in 1904, but he gave no name and his description is not referred to by Mortensen, Rostrup & Kølpin Ravn.

5. The subspecific name *avenae* was regularly mentioned as a *nomen nudum* in the annual reviews of the occurrence of plant diseases and pests in Denmark for the years 1907 to 1925. Wollenweber (1934, *Illustr. Landwirtsch. Z.* No. **12** : 101) stressed the physiological and morphological differences between *H. schachtii* var. *avenae* (Haferälchen) and *H. schachtii* (Rübenälchen) and gave a table of measurements showing the size-differences between the " female worms (cysts) " of *H. radicicola* (Greeff) Müller [=*Meloidogyne* spp.], *H. rostochiensis* Wollenweber, *H. schachtii* var. *avenae* and *H. schachtii* A. Schmidt. A translation of his description read : " *Heterodera schachtii* var. *avenae*, the oat eelworm, clearly occupies a middle place between the beet and the root [-knot] nematodes, but which [place] has yet to be decided ". Wollenweber is here evidently referring to the figures given in his table which indicate that in the ratios of body length/width and body plus neck length/width the cereal eelworm cysts resemble cysts of *H. schachtii* and differ from those of *H. rostochiensis* and from females of root-knot eelworm, whereas in neck length and ratio of body length/neck length the cereal eelworm cysts are nearer *H. rostochiensis* than *H. schachtii* (see Table).

Species or variety	Host plant	Female eelworms (cysts)								
		Eggs		Body		Body L / width	Total L / width	Neck L	Body L / Neck L	Stylet
		L	W	L	W					
Heterodera radicicola	Potato	80	44	553	479	1.2	1.4	137	4.0	15
H. rostochiensis	Potato	97	46	655	640	1.0	1.2	137	5.0	—
H. schachtii var. *avenae*	Oats	—	—	526	334	1.6	1.6*	120	4.4	23
H. schachtii	Beet	106	45	686	440	1.6	1.7	84	8.2	29
H. schachtii	Cabbage	115	43	667	425	1.6	1.9**	81	8.2	28

* This is an error and should read 1.9.

** This is an error and should read 1.76
Measurements in μ.

We hold that by using the name in connection with differential measurements of the cysts of the females, coupled with a reference to the host plants, Wollenweber gave the status of availability to the subspecific name *avenae*. Cyst measurements alone are now known to be of little use for identification in this case, particularly when there is no indication of the number of measurements made and when immature female cysts are taken. (Stylet measurements are given, but in *mature* cysts the stylet is no longer visible.) Mention of the host plants alone (such as had frequently been given in the past by other writers) would not have sufficed for this purpose, though this evidence was, and still is, sufficient to identify the cereal root eelworm in practice without ambiguity.

Wollenweber, however, appears to have recognized that there were morphological differences between beet and oat eelworms, and he attempted to indicate what these differences were.

6. In 1930 Schmidt (O.) (*Pflanzenbau* **3** : 420–464) published a thorough analysis of the differences between the larvae of the beet eelworm and the oat eelworm, based on 40,000 measurements of larvae from 60 populations, and described the morphological, host-preference and hatching-rhythm differences between the two. He divided the larvae into two groups, named *H. schachtii* var. *major* and var. *minor* respectively, and there is no doubt of the availability of both names as from his work. In 1934 Filipjev ([*Nematodes beneficial and harmful to agriculture*] in Russian, see p. 237) summarized O. Schmidt's work and reproduced some of his illustrations. He used the name *avenae* as a specific name. Neither O. Schmidt nor Filipjev quoted Wollenweber's work, but whereas Schmidt gave no indication that he knew of the earlier Danish records, Filipjev specifically mentions them. According to correspondence with Bovien in 1937, however, Filipjev was uncertain about the availability of the name *avenae*.

7. In 1940 Franklin (*J. Helminth.* **18** : 193–208) used the binomen *H. major* O. Schmidt for the oat eelworm, being at that time unaware of Wollenweber's work in which the name *avenae* had first been published as an available name. In 1957 (*Nematologica* **2** : 149–151), still without having seen Wollenweber's work, she held that *H. major* was the first name to have been validly published for the species, but noted the extensive prior use of *avenae*, and added : " It should, however, be emphasised that the important point is not so much *which* name should be adopted, but that only *one* name should be used, and that that one should be chosen in accordance with the International Rules of Zoological Nomenclature. Unless, therefore, some relevant publication or reference has been overlooked, it is clear that the correct name for the cereal-root eelworm is *Heterodera major* (O. Schmidt, 1930) Franklin, 1940 ". In the same year she enquired of Mr. Hemming, then Secretary to the Commission, whether that name or *Heterodera avenae* should be used for the cereal-root eelworm and she repeated her enquiry in February, 1958 (having then seen Wollenweber's paper and drawing the Secretary's attention to it), but at that time the resources of the Commission's office were devoted to the preparations for the London Colloquium and the publication in book-form of the Official Lists and Indexes.

8. In June, 1958, the two other authors of the present application approached the Commission (independently of Dr. Franklin) for a ruling on the validity of the name *avenae* as the name of the cereal-root eelworm, and correspondence between the three applicants and the office of the Commission has resulted in this joint application.

9. While it is obvious that Schmidt's work appears to be thorough and careful, it is in fact of less practical use to agricultural nematologists. The majority of these workers, when confronted with females and brown cysts associated with the roots of cereals, find that the criteria given by Wollenweber are practical and satisfactory aids to identification, coupled with his statement that the species infests oats, barley, wheat and rye. Schmidt based the name *major* on the greater length of " oat eelworm " larvae compared with " beet

eelworm " larvae and supported this with numerous measurements which were later confirmed by Fenwick & Franklin (1951). But statistical analysis of great numbers of larvae is not a feasible method of identification for the ordinary worker. An experienced worker can judge by eye, on releasing larvae from a cyst, whether they are those of the oat eelworm or of the beet eelworm, if he has to choose between those two. One of us (M.O.), however, indicates that a strain of *Heterodera schachtii* on *Spergula arvensis*, which is found at different localities in the Netherlands and also occurs in Germany, has larvae which are as long as or longer than the oat eelworm (522–600 μ), though it can be separated from the oat eelworm on cyst form and other characters. It is therefore advisable to rely on the practical application of cyst-form and other characters as indicated under paragraph 11, in addition to host plant, and to use larval length with caution as an additional character.

10. It will be seen from the figures given in Appendix I that most of the references to *H. major* are from England, where most of the work on the species has been done. If workers in that country could be persuaded to adopt the name *avenae*, world usage would be preponderantly in favour of that name. It may also be pointed out that one of us (M.O.) has used the name *avenae* in describing morphological characters overlooked by previous authors by which the cereal-root eelworm can be readily recognized (Oostenbrink & den Ouden, 1954).

11. The material described by Wollenweber and O. Schmidt cannot be traced, and it is unlikely that the older Danish records were based on material stored in collections. It is therefore proposed to designate a neotype for the species. This specimen, which is shortly described in Appendix II, is deposited in the nematology collections of the Plantenziektenkundige Dienst, Wageningen, Netherlands, where specimens agreeing with the neotype will be kept available for distribution to other nematology centres on request. The oat eelworm, *Heterodera avenae* Wollenweber, 1924, as described from the type material mentioned above, differs from other known *Heterodera* species by the following characters : A broad lemon-shaped cyst with a low, tapering vulval cone and with an extremely short vulval slit (12 μ). Cyst wall thick ($\pm 9\ \mu$), brown to black, with conspicuous irregular punctation ; young cysts with a thick subcrystalline layer. Larvae on an average well above 500 μ long, with a slightly curved, long tail ($\pm 1\frac{1}{2} \times$ stylet length) and with a distinctly tapering head which appears rounded owing to the narrow (8–9 μ) lip.

12. We therefore request the International Commission :—

(1) to rule that neither the name *minor* O. Schmidt, 1930, as published in the combination *Heterodera schachtii* subsp. *minor*, nor the name *major* O. Schmidt, 1930, as published in the combination *Heterodera schachtii* subsp. *major*, is to be used in preference to the name *avenae* Wollenweber, 1924, as published in the combination *Heterodera schachtii* var. *avenae*, by those zoologists who consider that all of those names apply to the same taxon ;

(2) to rule that the nominal species *Heterodera avenae* is to be interpreted by reference to the neotype described in Appendix II to this application and made available for further study as indicated.

(3) to place the subspecific name *avenae* Wollenweber, 1924, as published in the combination *Heterodera schachtii* A. Schmidt var. *avenae*, on the Official List of Specific Names in Zoology.

APPENDIX I

Literature on the Cereal Root Eelworm

I. Papers in which the cereal root eelworm is referred to as *Heterodera avenae*.

(Numbers are the numbers given to the papers in the following list A.)

Country of Author	Papers entirely about *H. avenae*	Papers on *Heterodera* spp. including *H. avenae*	Brief mention of *H. avenae* amongst other nematodes	Total
Canada	1, 11	10	—	3
Germany	19	16, 21	4	4
Holland	3, 7, 8	5, 15	12, 13, 14	8
Israel	—	9	—	1
Italy	—	—	2	1
U.S.A.	—	—	17, 18, 20	3
U.S.S.R.	—	—	6	1
Totals	6	6	9	21

12 papers
by 10 authors from
4 countries

II. Papers in which the cereal root eelworm is referred to as *Heterodera major*.

(Numbers are the numbers given to the papers in the following list B.)

Country of Author	Papers entirely about *H. major*	Papers on *Heterodera* spp. including *H. major*	Brief mention of *H. major* amongst other nematodes	Total
Britain	2, 10, 12a, 16, 17, 18, 19, 19a, 24, 33, 34, 35, 36, 38	7, 11, 12, 15, 21, 26, 30, 37, 39, 40, 41	6, 14, 22, 23, 28, 31, 32	32
Denmark	1, 1a, 3, 5	—	4	5
Germany	8, 13	—	—	2
Ireland	9	—	—	1
Israel	—	—	29	1
Italy	27	—	—	1
Japan	—	20	—	1
U.S.A.	—	—	25	1
Totals	22	12	10	44

34 papers
by 23 authors from
8 countries.

Totals refer to the number of papers listed in the respective lines of columns.

Columns 2 and 3 are the important ones : papers listed in column 4 are general ones.

Distribution of the cereal root eelworm is in all countries in the first column, except the United States of America.

A. Papers in which the name *Heterodera avenae* is used.

C=Canada G=Germany H=Holland Is=Israel It=Italy

1 C Baker, A., & Chapman, L. J. 1946. " The oat nematode in Ontario." Processed Publication, Div. of Ento., Dept. Agric. Canada, No. 29, 4 pp.

2 It Baresi, F. 1955. " La lotta contro le anguillule delle foglie dei crisantemi mediante l'insetticida sistemico selettivo ' Systox '." Notiziario sulle Malattie delle Piante, Milan, No. 29, 3–7. (General paper on control.)

3 H Dijkema, L. R. 1947. " Eenige waarnemingen met betrekking tot eenzijdige graanbouw." *Tijdschr. PlZiekt.* **53**(1) : 16–18

4 G Goffart, H. 1951. " Methoden zur Untersuchung von Böden auf Kartoffelälchen." *NachrBl. dtsch. PflSchDienst, Stuttgart* **3**(2) : 25–27. (Chief subject is *H. rostochiensis*, *H. avenae* is mentioned incidentally.)

5 H Hijner, J. A., Oostenbrink, M., & den Ouden, H. 1953. " Morphologische verschillen tussen de belangrijkste *Heterodera*-soorten in Nederland." *Tijdschr. PlZiekt.* **59** : 245–251

6 USSR Kirjanova, E. S. 1951. [Variations in plant nematodes under the influence of food specialization.] *Trud. zool. Inst. Akad. Nauk SSSR* **9**(2) : 378–404 [In Russian]

7 H Kort, J. 1957. " Het voorkomen van het havercystenaaltje (*Heterodera avenae* Filipjev 1934=*H. major* Schmidt, 1930) in Nederland." *Versl. PlZiekt. Dienst Wageningen* No. 130, 143–146

8 H Kort, J., & s'Jacob, J. J. 1956. " Een oriënterend onderzoek naar het voorkomen van en de schade veroorzaakt door het havercystenaaltje (*Heterodera avenae*=*H. major*) in 1955." *Tijdschr. PlZiekt.* **62** : 7–11

9 Is Minz, G. 1956. " Cyst-forming nematodes in Israel." *Pl. Dis. Reptr.* **40**(11) : 971–973

10 C Mulvey, R. H. 1957. " Taxonomic value of the cone top and the underbridge in the cyst-forming nematodes *Heterodera schachtii*, *H. schachtii* var. *trifolii* and *H. avenae* (Nematoda : Heteroderidae)." *Canad. J. Zool.* **35**(3) : 421–423

11 C Mulvey, R. H. 1959. " Preliminary studies on oogenesis in a cyst-forming nematode, *Heterodera avenae* (Nematoda : Heteroderidae)." *Nematologica* **4**(1) : 1–2

12 H Oostenbrink, M. 1953. "Actuele waarnemingen en meldingen op nematologisch gebied." *Versl. PlZiekt. Dienst Wageningen* No. 120, 165–175. (*H. avenae* mentioned once in a paragraph on *Heterodera* species.)

13 H Oostenbrink, M. 1954. " Een overzicht van de nematologie als onderdeel van de plantenziektenkunde." *Landbouwvoorlichting* **11**(5) : 215–226. (One paragraph deals with *H. avenae* in this general paper.)

14 H Oostenbrink, M. 1957. " Das Vorkommen von Artgemischen bei pflanzenparasitären Nematoden." *Nematologica* **2** (Suppl.) : 342–346 (*H. avenae* mentioned once)

15 H Oostenbrink, M., & den Ouden, H. 1954. " De structuur van de kegeltop als taxonomisch kenmerk bij *Heterodera*-soorten met citroenvormige cysten." *Tijdschr. PlZiekt.* **60** : 146–151

16 G Scherney, F. 1957. " Morphologische und histologische Untersuchungen an *Heterodera*-Arten." *Z. PflKrankh.* **64**(3) : 131–139

17 USA Steiner, G., Taylor, A. L., & Cobb, G. S. 1951. " Cyst-forming plant parasitic nematodes and their spread in commerce." *Proc. helminth. Soc. Wash.* **18**(1) : 13–18 (*H. avenae* mentioned once)

18 USA USDA, Annual Report for 1950–51 of Bureau of Plant Industry, Soils and Agricultural Engineering. " Nematology investigations." Year 1950–1951, pp. 425–427

19 G Wagner, F. 1952. " Über Auftreten und Bekämpfung des Haferälchens (*Heterodera avenae*)." *Pflanzenschutz*, **4**(7) : 83–85

20 USA Wheeler, W. H. 1949. " Interceptions of the genus *Heterodera* in foreign soil." *Pl. Dis. Reptr.* **33**(12) : 446

21 G Wieser, W. 1953. " On the structure of the cyst wall in four species of *Heterodera* Schmidt." *Medd. Våxtskyddsanst. Stockh.* No. 65, 15 pp.

B. Papers in which the name *Heterodera major* is used.

B=British D=Danish G=German It=Italian J=Japanese
Is=Israel Ir=Ireland USA=U.S.A.

1 D Andersen, S. 1956. " Collection of cysts of *Heterodera major* and estimation of the cyst content." *Nematologica* **1**(4) : 303–306

1a D Andersen, S. 1959. " Resistance of barley to various populations of the cereal root eelworm (*Heterodera major*)." *Nematologica* **4**(2) : 91–98

2 B Anon. 1957. " Cereal root eelworm." Advisory Leaflet No. 421, Min. of Agric. Fish. & Food, pp. 4

3 D Borg, A. 1952. "Angrepp av nematoder på havre." *Växtskyddsnotiser, Stockh.*, Year 1952 (5/6), 69–74

4 D Bovien, P. 1950. " Plantesygdomme i Danmark 1947. 8. Skadedyr på havebrugsplanter." *Tidsskr. Planteavl* **53**(2) : 212–223

5 D Bovien, P. 1953. " Om havreålen (*Heterodera major*) og resultaterne af nogle forsøg pa smittet jord." *Tidsskr. Planteavl* **56**(4) : 581–591

6 B Cameron, A. E. 1946. " Insect and other pests of 1945." *Trans. Highl. agric. Soc. Scot.* Ser. 5, **58** : 101–120. (One paragraph on *H. major*)

7 B Cooper, B. A. 1955. "A preliminary key to British species of *Heterodera* for use in soil examination." Soil Zoology, Proc. Univ. Nott. 2nd Easter School in agric. Sci., 1955, pp. 269–280. Butterworths, London

8 G Dieter, A. 1958. " Beobachtungen über *Heterodera major* O. Schm. an Hafer." *NachrBl. dtsch. PflSchDienst, Berl.* N.F. **12**(8) : 155–158

9 Ir Duggan, J. J. 1958. " Population studies on cereal root eelworm *Heterodera major* (O. Schmidt, 1930)." *Econ. Proc. Roy. Dublin Soc.* **4**(6) : 103–118

10 B Dunn, E. 1957. " Cereal root eelworm." *Scot. Agric.* **36**(3) : 146–148

11 B Fenwick, D. W. 1956. " Nematology Department." Report of the Rothamsted Experimental Station, Year 1955, pp. 107–111 (see p. 111)

12 B Fenwick, D. W., & Franklin, M. T. 1951. " Further studies on the identification of *Heterodera* species by larval length. Estimation of the length parameters for eight species and varieties." *J. Helminth.* **25**(1/2) : 57–76

12a B Fidler, J. H., Church, B. M., & Southey, J. F. 1959. " Field sampling and laboratory examination of cereal root eelworm cysts." *Plant Pathology* **8**(1) : 27–34

13 G Goffart, H. 1939. " Zur Lebensgeschichte von *Heterodera schachtii maior* (Nematodes)." *Zbl. Bakt.*, Abt. 2, **99** : 394–399

14 B Goodey, T. 1956. " The nematode parasites of plants catalogued under their hosts." Commonw. Bur. agric. Parasit. (Helminth.), St. Albans, Revised by J. B. Goodey & M. T. Franklin, 140 pp.

15 B Hague, N. G., & Hesling, J. J. 1958. " Population studies on cyst-forming nematodes of the genus *Heterodera*." *Proc. linn. Soc. London* **169**(1/2) : 86–92

16 B Hesling, J. J. 1956. " Some observations on *Heterodera major*." *Nematologica* **1**(1) : 56–62

17 B Hesling, J. J. 1957. " The hatching response of *Heterodera major* (O. Schmidt) to certain root diffusates." *Nematologica* **2**(2) : 123–125

18 B Hesling, J. J. 1957. " *Heterodera major* O. Schmidt on cereals—a population study." *Nematologica* **2**(4) : 285–299

19 B Hesling, J. J. 1958. " *Heterodera major* O. Schmidt, 1930—Population changes in the field and in pots of fallow soil " *Nematologica* **3**(4) : 274–282

19a B Hesling, J. J. 1958. "The efficiency of certain grasses as hosts of cereal root eelworm." *Plant Pathology* **7**(4) : 141–143

20 J Ichinohe, M. 1955. [Studies on the morphology and ecology of the soy bean nematode, *Heterodera glycines*, in Japan.] Report of the Hokkaido National Agricultural Experimental Station, No. 48, 64 pp. [In Japanese : English summary pp. 59–64]

21 B Jones, F. G. W. 1950. "Observations on the beet eelworm and other cyst-forming species of *Heterodera*." *Ann. appl. Biol.* **37**(3) : 407–440

22 B Jones, F. G. W. 1957. "Nematology Department." Report of the Rothamsted Experimental Station, Year 1956, pp. 121–126, see p. 124

23 B Jones, F. G. W. 1958. "Nematology Department." Report of the Rothamsted Experimental Station, Year 1957, pp. 124–130, see p. 128

24 B Jones, F. G. W., & Moriarty, F. 1956. "A preliminary experiment on the effect of various cereals on the soil population of cereal root eelworm, *Heterodera major* O. Schmidt." *Nematologica* **1**(4) : 326–330

25 USA Krusberg, L. R., & Hirschmann, H. 1958. "A survey of plant parasitic nematodes in Peru." *Plant Dis. Reptr.* **42**(5): 599–608. (*H. major* mentioned amongst many other nematodes)

26 B Lapage, G. 1956. "The potato-root eelworm and other species related to it." *Sch. Sci. Rev.* **37**(133) : 321–336 (Brief account of *H. major*)

27 It Mezetti, A. 1953. "Osservazioni sull'anguillulosi radicale dei cereali in Italia." *Ann. Sper. agr.*, Nuova serie **7**(3) : 743–758

28 B Miles, H., & Miles, M. 1954. "Root eelworms." *New Biol.* No. 16, 101–117. (General and popular account.)

29 Is Minz, G. 1957. "Crop damage by nematodes in Israel." *Nematologica* **2** (Suppl.) : 405S. (*H. major* mentioned)

30 B Peters, B. G. 1952. "The eelworm problem : biological aspects. Plant eelworms of the genus *Heterodera*." *Chem. & Ind.*, London, Year 1952, No. 41, 994–995

31 B Peters, B. G. 1954. "Nematology Department." Report of the Rothamsted Experimental Station, Year 1953, pp. 97–102

32 B Peters, B. G. 1955. "Nematology Department." Report of the Rothamsted Experimental Station, Year 1954, pp. 96–102

33 B Southey, J. F. 1956. "National survey work for cereal root eelworm (*Heterodera major* (O. Schmidt) Franklin)." *Nematologica* **1**(1) : 64–69

34 B Southey, J. F. 1956. "The cereal root eelworm." *The Agricultural Review* **2**(7) : 39–40

35 B Stone, L. E. W. 1956. "Cereal root eelworm : a farm survey." *Plant Path., Lond.* **5**(1) : 24–25

36 B Thomas, I., Brown, E. B., & Willis, R. J. 1946. " The cereals root eelworm, *Heterodera major* (O. Schmidt) Franklin, in North Wales." *Ann. appl. Biol.* **33**(1) : 63–65

37 B Wallace, H. R. 1958. " Observations on the emergence from cysts and the orientation of larvae of three species of the genus *Heterodera* in the presence of host plant roots." *Nematologica* **3**(3) : 236–243

38 B White, J. H. 1957. " Cereal root eelworm in Durham, 1955." *Plant Path., Lond.* **6**(3) : 107–108

39 B Winslow, R. D. 1954. " Provisional lists of host plants of some eelworms (*Heterodera* spp.)." *Ann. appl. Biol.* **41**(4) : 591–605

40 B Winslow, R. D. 1955. " The hatching responses of some root eelworms of the genus *Heterodera*." *Ann. appl. Biol.* **43**(1) : 19–36

41 B Winslow, R. D. 1955. "A new method for the production and recovery of cysts of root eelworms (*Heterodera* spp.) for use in bio-assay." *J. Helminth.* **29**(1/2) : 49–54

APPENDIX II

Description of Neotype—by M. Oostenbrink.

(Locality—Aschersleben, Germany.)

A mature cyst with eggs and larvae on slide *Heterodera* f 141. Neoparatypes on slides *Heterodera* f 133–140 and 142–152. The slides are deposited in the Nematology Collection of the Plantenziektenkundige Dienst, Wageningen, Netherlands, where they are available for study.

The neotype cyst has been cracked open so that more differential characters are readily seen. The cyst is clearly lemon-shaped, has a typical short vulval slit (12 μ long) and is brown to black with conspicuous punctation. The cyst wall is 9 μ thick. About 250 eggs and 15 larvae are visible. The eggs measure 126 μ long by 56 μ wide (mean of 20 specimens) and the larvae average 530 μ long (8 specimens). The larval tails are slightly curved and are about $1\frac{1}{2}$ times as long as the mouth stylet. The heads are tapering and rounded, with the lip region 3.9 μ high and 8.5 μ broad (average of 10 specimens). The larval stylets average 25 μ long (10 specimens).

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS FOR ALL PURPOSES THE GENERIC NAME *SOUTHERNIA* FILIPJEV, 1927, WITH OTHER RECTIFICATIONS OF NOMENCLATURE (CLASS NEMATODA). Z.N.(S.) 940

By Carl Allgén (*Malmö, Sweden*)

The present application is designed to regulate certain problems in the nomenclature of the free-living Nematodes. In the first of the three cases presented, the plenary powers are invoked in order to suppress a senior homonym so as to stabilise a junior homonym in general use. The second case is concerned with a generic name which, though originally proposed as an oversight, is useful for taxonomic purposes, and which should therefore be preserved. The third case is concerned with a generic name which was at first wrongly, and then later, rightly found to be a homonym, and with the stabilisation of the replacement name.

Case No. 1

2. Southern, 1914 (*Proc. roy. Irish Acad.* **31** (54) : 41) established the new genus *Demania* (Class Nematoda) and referred to it only the two new species *Demania major* and *Demania minor*. The generic name was, however, a junior homonym of *Demania* Laurie, 1906 *in* Herdman, *Rep. Ceylon Pearl Fish.* **5** : 396 (Class Crustacea).

3. In 1926 Baylis & Daubney (*Syn. Fam. Gen. Nemat.* : 112) proposed the generic name *Rhabdodemania* as a replacement name for *Demania* Southern, 1914, *non Demania* Laurie, 1906, and designated *Demania major* Southern as the type-species of their new genus. This species was eligible for subsequent designation as the type-species of *Demania* Southern, for which no earlier type-designation is known, so that under the Rules, it is the type-species both of *Demania* Southern and of *Rhabdodemania* Baylis & Daubney.

4. Filipjev, in 1927 (*Arch. f. Naturgesch.* **91** : 14, pl. 3, figs. 8, 9) proposed the new generic name *Southernia* as a replacement name for *Demania* Southern, 1914, and included in it only the species *gracilis* Ditlevsen, and *Demania minor* Southern. In the same paper, however (: 64, 90), Filipjev used, not his own new name *Southernia*, but *Rhabdodemania* Baylis & Daubney, 1926, and he quoted *Demania major* Southern as type-species. It seems probable that Filipjev had proposed the replacement name *Southernia* in the manuscript of his paper, and that he had later discovered the earlier replacement name *Rhabdodemania*, but that he had not corrected the proof to read *Rhabdodemania* on page 14 and in the explanation of pl. 3, figs. 8, 9.

5. In 1929 Allgén (*Zool. Jahrb.* **57** : 436) proposed the new genus *Southernia* for the single new species *Southernia zosterae*, from the west coast of Sweden, which is therefore the type-species by monotypy. The generic name is regarded as taxonomically valid and is in current use. It is, however, invalid as a junior homonym of *Southernia* Filipjev, which is itself a junior objective synonym of *Rhabdodemania* Baylis & Daubney (since both are replacement names for

Demania Southern, *non* Laurie). The Commission is therefore asked to use its Plenary Powers to suppress the generic name *Southernia* Filipjev, 1927 so as to validate the generic name *Southernia* Allgén, 1929.

Case No. 2

6. Bastian, 1865 (*Trans. linn. Soc. London* **25** : 157) established the new genus *Sphaerolaimus* for the single new species *Sphaerolaimus hirsutus* Bastian (*ibid.* : 157–158, pl. 13, figs. 192–194), which is therefore the type-species by monotypy.

7. Ditlevsen, 1918 (*Vid. Medd. dansk. naturh. Forend.* **70** : 149, 179, pls. 7, 8) described his new species *paradoxus* in the genus *Sphaerolaimus* Bastian. This species has since been found only once, in a fifty-year old sample from Greenland (Allgén, 1954). In his list of figures, however, Ditlevsen established the new genus *Parasphaerolaimus*, with *paradoxus* as the type-species, by monotypy. He probably named the new genus while his paper was in proof and neglected to change the generic name in the text, but in any case the name is accompanied by a reference to a figure and is therefore available under the rules relating to generic names published before 1931.

8. There are significant taxonomic differences between the old genus *Sphaerolaimus* and *Parasphaerolaimus*, and the latter ought to be preserved as the generic name for the species *paradoxus* Ditlevsen, 1918.

Case No. 3

9. In 1894 Cobb (*Proc. linn. Soc. N.S. Wales* (2) **8** : 420) described the new genus *Fimbria* (Class Nematoda), with the new species *Fimbria tenuis* as the type-species, by monotypy. The generic name was, however, preoccupied by *Fimbria* Bohadsch, 1761 (Phylum Mollusca), and in 1905 Cobb (*in* Stiles & Hassal, *Bull. U.S. Bur. anim. Ind.* No. **79** : 107) proposed the new name *Fimbrilla* as a replacement for *Fimbria* Cobb, 1894, *non* Bohadsch.

10. In 1927 Allgén (*Zool. Jahrb.* (Syst.) **57** : 492) described a new genus *Fimbriella*, with *Fimbriella kornöensis* [sic] new species as the type-species by monotypy. This generic name has been mistakenly rejected by some authors as a homonym of *Fimbrilla* Cobb.

11. *Fimbriella* Allgén, 1927, is nevertheless invalid, as a homonym of *Fimbriella* Stoliczka, 1871 (Class Pelecypoda). Strand therefore replaced *Fimbriella* Allgén by *Allgenia* Strand, 1934 (*Folia zool. hydrobiol.* **6** : 271). *Fimbrilla* Cobb, 1905, and *Allgenia* Strand, 1934 are thus the valid names involved in this case, and they should be placed on the Official List to prevent any further confusion.

12. In the light of the facts set out above I therefore ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers to suppress the generic name *Southernia* Filipjev, 1927, for the purposes both of the Law of Priority and the Law of Homonymy ;

(2) to place the following generic names on the Official List of Generic

Names in Zoology :

(a) *Rhabdodemania* Baylis & Daubney, 1926 (gender : feminine), type-species, by original designation *Demania major* Southern, 1914 ;

(b) *Southernia* Allgén, 1929 (gender : feminine), type-species, by monotypy, *Southernia zosterae* Allgén, 1929 ;

(c) *Sphaerolaimus* Bastian, 1865 (gender : masculine), type-species, by monotypy, *Sphaerolaimus hirsutus* Bastian, 1865 ;

(d) *Parasphaerolaimus* Ditlevsen, 1918 (gender : masculine), type-species, by monotypy, *Sphaerolaimus paradoxus* Ditlevsen, 1918 ;

(e) *Fimbrilla* Cobb, 1905, (gender : feminine), type-species, by monotypy, through *Fimbria* Cobb, 1894, *Fimbria tenuis* Cobb, 1894 ;

(f) *Allgenia* Strand, 1934 (gender : feminine), type-species, by monotypy, through *Fimbriella* Allgén, 1927, *Fimbriella kornoensis* Allgén, 1927 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :

(a) *major* Southern, 1914, as published in the binomen *Demania major* (type-species of *Rhabdodemania* Baylis & Daubney, 1926) ;

(b) *zosterae* Allgén, 1929, as published in the binomen *Southernia zosterae* (type-species of *Southernia* Allgén, 1929) ;

(c) *hirsutus* Bastian, 1865, as published in the binomen *Sphaerolaimus hirsutus* (type-species of *Sphaerolaimus* Bastian, 1865) ;

(d) *paradoxus* Ditlevsen, 1918, as published in the binomen *Sphaerolaimus paradoxus* (type-species of *Parasphaerolaimus* Ditlevsen, 1918) ;

(e) *tenuis* Cobb, 1894, as published in the binomen *Fimbria tenuis* (type-species of *Fimbrilla* Cobb, 1905) ;

(f) *kornoensis* Allgén, 1927, as published in the binomen *Fimbriella kornöensis* [sic] (type-species of *Allgenia* Strand, 1934) ;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :

(a) *Southernia* Filipjev, 1927, as suppressed under the plenary powers in (1) above ;

(b) *Demania* Southern, 1914, a junior homonym of *Demania* Laurie, 1906 ;

(c) *Fimbria* Cobb, 1894, a junior homonym of *Fimbria* Bohadsch, 1761 ;

(d) *Fimbriella* Allgén, 1927, a junior homonym of *Fimbriella* Stoliczka, 1871.

DIRECTION 104

GRANT OF THE STATUS OF AVAILABILITY TO THE NAMES PUBLISHED BY C. A. CLERCK IN 1757 IN THE WORK *ARANEI SVECICI* AND ADDITION OF THE TITLE OF THAT WORK TO THE OFFICIAL LIST OF WORKS APPROVED AS AVAILABLE FOR USE IN ZOOLOGICAL NOMENCLATURE

RULING.—(1) In accordance with a decision of the Thirteenth International Congress of Zoology, Paris, 1948 (*Bull. zool. Nomencl.* **5** : 33–35, 98–100), the generic name *Araneus* (Class Arachnida) and the specific names published in combination with it in C. A. Clerck's *Aranei svecici* are hereby ruled to be available as though they had been published subsequent to the starting point of zoological nomenclature and are to have priority as though they had been published in 1758 prior to the publication of the 10th edition of Linnaeus's *Systema Naturae.*

(2) In accordance with a decision of the Fifteenth International Congress of Zoology, London, 1958, the title of the following work is hereby added to the Official List of Works approved as available for use in Zoological Nomenclature with the Title No. 39 :—

Clerck, C. A., [1758], Svenska Spindlar . . . Aranei svecici, descriptionibus et figuris illustrati (Stockholm).

HISTORY OF THE CASE (Z.N.(S.) 537)

In 1947 Professor Pierre Bonnet published privately at Toulouse his *Pétition adressée à la Commission de Nomenclature Zoologique en faveur de la priorité des noms d'Araignées de Clerck.* In this work, Professor Bonnet gave concrete evidence of the importance to arachnologists of Clerck's names and of their usage by a large majority of authors in a large majority of works dealing with European spiders. Copies of this petition were sent to 62 specialists in various countries, and a report on the results of this survey was published in 1950 (*Bull. zool. Nomencl.* **3** : 173–176). This showed that 48 specialists supported Professor Bonnet's *Pétition* and only 4 opposed it. Of the remainder, 2 thought that they were not competent to express an opinion, and 8 (including 6 from eastern European countries) did not reply. Of these 8, it might be presumed from their published works that 6 would have supported and 2 opposed the *Pétition.*

Professor Bonnet's *Pétition* and report were considered by the Commission at its Paris (1948) meeting (*Bull. zool. Nomencl.* **4** : 274–277, 315–319) and by the Section on Nomenclature of the Thirteenth International Congress of Zoology (*ibid.* **5** : 33–35, 98–100). That Congress approved the endorsement by the Section on Nomenclature of the Commission's recommendation (*Bull. zool. Nomencl.* **4** : 319) : " that a proviso should be added to Article 26 [of the Règles Internationales de la Nomenclature Zoologique] directing that notwithstanding the general provisions of that Article, the generic name *Araneus* and the specific trivial names for species of the Class Arachnida published in 1757 in Clerck's *Aranei svecici* are to be treated as though they had been published subsequent to the starting point of zoological nomenclature and are to have priority as though they had been published in the year 1758 on some date prior to the publication of the 10th edition of Linnaeus's *Systema Naturae* ".

The preparation of a first draft of the text of the Règles as amended by the Paris (1948) and Copenhagen (1953) Congresses of Zoology was entrusted to Professor J. Chester Bradley, President of the Commission (*Copenhagen Decisions zool. Nomencl.* : 96–97). The decision regarding Clerck's work recorded above was incorporated by Professor Chester Bradley into his draft English text of the revised Règles as Article 2, Section 2(i) (*Bull. zool. Nomencl.* **14** : 38 ; for the equivalent French text, see : 386).

The Colloquium on Zoological Nomenclature held in London in July 1958, in connection with the Fifteenth International Congress of Zoology, acting under the mistaken impression (at its meeting on 9 July) that the title of Clerck's work had already been placed on the Official List of Works approved as available for use in Zoological Nomenclature, recommended the deletion of Draft Article 2, Section 2(i) from the International Code of Zoological Nomenclature on the grounds that the Code should not include provisions dealing with individual cases. When it was pointed out (at the meeting held on 12 July) that the title of that work had not in fact been placed on the Official List, the Colloquium " agreed to recommend that the work known as *Aranei svecici* and published by Clerck in 1757 be added to the Official List of Works available for use in Zoological Nomenclature with priority as from 1758 ".

Professor Chester Bradley pointed out (*in lit.* 12.ii.59) that the above decision automatically causes Clerck's work to rank after the 10th edition of the *Systema Naturae*, whereas the purpose of the Paris ruling was to give Clerck's names priority over Linnaeus's in this special case. The present Direction remedies the change unintentionally made by the London Congress in the Paris decision, while taking account of the fact that, in the draft Code approved by the Commission and the Congress at London in July 1958, the 10th edition of Linnaeus's *Systema Naturae* is taken to be, in principle, the first work available for zoological nomenclature published in 1758.

An application from Professor Bonnet for the placing of the valid names in Clerck's *Aranei svecici* on the Official Lists has been registered in the Commission's office with the number Z.N.(S.) 537. The present issue has been dealt with under the same reference number.

DECISION OF THE COMMISSION

On 12 March 1959 the Members of the Commission were invited to vote under the One-Month Rule on Voting Paper (O.M.) (59)2 for or against the adoption of the present Direction. At the close of the Voting Period on 12 April 1959 the state of the voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order: Lemche, Holthuis, Hemming, Vokes, Prantl, Boschma, Hering, Dymond, Bonnet, do Amaral, Bradley, Jaczewski, Key, Brinck, Mertens, Stoll, Mayr, Cabrera, Bodenheimer, Obruchev, Riley, Poll, Tortonese.

Negative Votes—none (0).

On leave of absence—none (0).

Votes not returned four (4): Uchida, Kühnelt, Miller, Hankó (late affirmative votes were received from Commissioners Uchida and Kühnelt).

CERTIFICATE

We certify that the votes cast on Voting Paper (O.M.)(59)2 were cast as set out above, that the proposal set out in the Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Direction No. 104.

N. D. RILEY RICHARD V. MELVILLE
Secretary *Assistant Secretary*
International Commission on Zoological Nomenclature
London
1 *May* 1959

OPINION 569

USE OF THE PLENARY POWERS TO SET ASIDE FIRST REVISER SELECTIONS MADE FOR THE GENERIC NAME *SELENE* LACÉPÈDE, 1803, AND FOR THE SPECIFIC NAMES *ROSTRATA* LESUEUR, 1817 (*MURAENA*); *LATIPINNA* LESUEUR, 1821 (*MOLLIENESIA*); AND *FUSCUS* STORER, 1839 ((*SYNGNATHUS*) (CLASS PISCES)

RULING.—(1) The following action is hereby taken under the plenary powers :—

(a) All selections made by First Revisers as to the relative precedence of the names specified in Col. 1 and Col. 2 respectively are hereby set aside, the names comprised in each of the pairs concerned being published in the same work and on the same day and being currently regarded by zoologists as applicable to the same taxon :—

	Col. 1	Col. 2
(i)	*Selene* Lacépède, 1803	*Argyreiosus* Lacépède, 1803
(ii)	*rostrata* Lesueur, 1817, as published in the binomen *Muraena rostrata*	*bostoniensis* Lesueur, 1817, as published in the binomen *Muraena bostoniensis*
(iii)	*latipinna* Lesueur, 1821, as published in the binomen *Mollienesia latipinna*	*multilineata* Lesueur, 1821, as published in the binomen *Poecilia multilineata*
(iv)	*fuscus* Storer, 1839, as published in the binomen *Syngnathus fuscus*	*peckianus* Storer, 1839, as published in the binomen *Syngnathus peckianus*

(b) It is directed that in the case of the names comprised in each of the pairs of names specified in (a) above the name specified in Col. 1 is to be accorded precedence over the name specified in Col. 2.

(2) The under-mentioned generic name is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1372 :

Selene Lacépède, 1803, by direction under the plenary powers in (1)(b) above, a name to be given precedence over the name *Argyreiosus* Lacépède, 1803 (gender : feminine) (type-species, by subsequent designation by Jordan & Gilbert (1883) : *Selene argentea* Lacépède, 1803).

(3) The under-mentioned specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :—

(a) *rostrata* Lesueur, 1817, as published in the binomen *Muraena rostrata*, a name to be given precedence over the name *bostoniensis* Lesueur, 1817, as published in the binomen *Muraena bostoniensis*, under the Ruling given under the plenary powers in (1)(b) above (Name No. 1668);

(b) *latipinna* Lesueur, 1821, as published in the binomen *Mollienesia latipinna*, a name to be given precedence over the name *multilineata*,

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as published in the binomen *Poecilia multilineata* under the Ruling given under the plenary powers in (1)(b) above (Name No. 1669) ;

(c) *fuscus* Storer, 1839, as published in the binomen *Syngnathus fuscus* a name to be given precedence over the name *peckianus*, as published in the binomen *Syngnathus peckianus* under the Ruling given under the plenary powers in (1)(b) above (Name No. 1670) ;

(d) *vomer* Linnaeus, 1758, as published in the binomen *Zeus vomer* (Name No. 1671).

HISTORY OF THE CASE (Z.N.(S.) 952)

On 7 April 1955, Dr. Reeve M. Bailey (University of Michigan, Ann Arbor, Michigan, U.S.A.) informed the Secretary to the Commission by letter of his intention to request the preservation for four species of American fishes of names which would fall to be rejected under the Copenhagen decision (*Copenhagen Decisions zool. Nomencl.* : 66–67) substituting the " first reviser " principle for that of page and line precedence in deciding the relative priority of names published in the same work on the same day and applied to the same taxon. Dr. Bailey's definitive application was sent to the printer on 2 July 1957 and was published on 30 December 1957 in *Bull. zool. Nomencl.* **13**(10/11) : 303–308.

Public Notice of the possible use by the Commission of its plenary powers in this case was given in the part of the *Bulletin* in which Dr. Bailey's application was published, as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to one ichthyological serial.

The following comments were received :—

(a) *Dr. A. H. Leim* (*Fisheries Research Board of Canada, Biological Station, St. Andrews, N.B.*).—" I favour the retention of *Anguilla rostrata* and *Syngnathus fuscus* because they are rather firmly established. I have no opinion on the other cases that are submitted. "

(b) *Dr. E. Trewavas* (*British Museum* (*Natural History*), *London*).—" I support all Dr. Bailey's proposals except that I have no opinion on *Syngnathus fuscus*."

(c) *Dr. A. F. Bruun* (*Universitetets Zoologiske Museum, Copenhagen*).— " I would like to support Dr. Bailey's suggestions in all respects."

DECISION OF THE COMMISSION

On 7 July 1958 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (58)14 either for or against the proposals set out in points (1) to (3) on *Bull. zool. Nomencl.* **13** : 306–307, paragraph 8.

At the close of the Voting Period on 7 October 1958 the state of the voting was as follows :—

(a) Affirmative votes—twenty (20) received in the following order : Holthuis, Boschma, Hemming, Bodenheimer, Vokes, Riley, Hankó, Prantl, Hering, Mayr, Lemche, Brinck, Jaczewski, do Amaral, Dymond, Cabrera, Stoll, Kühnelt, Tortonese, Bonnet ;

(b) Negative votes—one (1) : Mertens ;
(c) On leave of absence—three (3) : Bradley, Key, Miller ;
(d) Votes not returned—none.

Original References

The following are the original references for the generic and specific names placed on Official Lists by the Ruling given in the present Opinion :
Selene Lacépède, 1803, *Hist. nat. Poissons*, **4** : 560
rostrata, *Muraena*, Lesueur, 1817, *J. Acad. nat. Sci. Philad.* **1**(5) : 81
latipinna, *Mollienesia*, Lesueur, 1821, *J. Acad. nat. Sci. Philad.* **2**(1) : 3–4
fuscus, *Syngnathus*, Storer, 1839, *Fishes of Massachusetts* : 162–163
vomer, *Zeus*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 266

The following is the original reference for the selection of a type-species for a nominal genus concerned in the present Ruling;
For *Selene* Lacépède, 1803
JORDAN & GILBERT, 1883,
Bull. U. S. nat. Mus. **16** : 439

CERTIFICATE

We certify that the votes cast on Voting Paper (58)14 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 569.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *May* 1959

OPINION 570

DESIGNATION UNDER THE PLENARY POWERS OF A TYPE-SPECIES IN HARMONY WITH EXISTING USAGE FOR THE NOMINAL GENUS *INDIANA* MATTHEW, 1902 (CLASS CRUSTACEA, ORDER OSTRACODA)

RULING.—Under the plenary powers (a) all selections of type-species for the nominal genus *Indiana* Matthew, 1902, made prior to the present Ruling are hereby set aside and (b) the nominal species *Indiana lippa* Matthew, 1902, is hereby designated to be the type-species of the foregoing genus.

(2) The following generic name is hereby placed on the Official List of Generic Names in Zoology :—

Indiana Matthew, 1902 (gender : feminine), type-species by designation under the Plenary Powers in 1(b) above : *Indiana lippa* Matthew, 1902 (Name No. 1373) ;

(3) The following specific name is hereby placed on the Official List of Specific Names in Zoology :—

lippa Matthew, 1902, as published in the binomen *Indiana lippa* (type-species of *Indiana* Matthew, 1902) (Name No. 1672) ;

(4) The following Generic Names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology :—

Indianites Ulrich & Bassler, 1931 (a junior objective synonym of *Indiana* Matthew, 1902) (Name No. 1283) ;

Indiana Tutt, 1903 (a junior homonym of *Indiana* Matthew, 1902) (Name No. 1284) ;

Indiana Chakravatz, 1943 (a junior homonym of *Indiana* Matthew, 1902) (Name No. 1285) ;

(5) The following family-group name is hereby placed on the Official List of Family-Group Names in Zoology :

INDIANIDAE Ulrich & Bassler, 1931 (type-genus : *Indiana* Matthew, 1902) (Name No. 274) ;

(6) The following family-group name is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology :—

INDIANITIDAE Ulrich & Bassler, 1931 (a junior objective synonym of INDIANIDAE Ulrich & Bassler, 1931) (type-genus : *Indianites* Ulrich & Bassler, 1931) (Name No. 305).

HISTORY OF THE CASE (Z.N.(S.) 1159)

On 27 August 1956, Mr. P. C. Sylvester-Bradley applied for the use of the plenary powers to designate *Indiana lippa* Matthew, 1902, as the type-species of the nominal genus *Indiana* Matthew, 1902. Mr. Sylvester-Bradley's application was sent to the printer on 25 October 1956 and was published on 25 January 1957 in *Bull. zool. Nomencl.* **13**(1) : 29–31.

Bull. zool. Nomencl., Vol. 17, pts. 3–5. December 1959.

Public Notice of the possible use by the Commission of its plenary powers in this case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to three palaeontological serials.

The following comments were received :—

(a) *Dr. C. J. Stubblefield* (*Geological Survey & Museum, London*) (see *Bull. zool. Nomencl.* **13** : 190). As a result of this comment, Mr. Sylvester-Bradley submitted revised proposals in the form of two alternatives A and B (*ibid.* : 191–193). Revised Public Notices of the possible use of the plenary powers in connection with the amended proposals were given as before.

(b) *Professor H. B. Whittington* (*Museum of Comparative Zoology, Harvard College, Cambridge, Mass., U.S.A.*). " It seems to me that the Alternative B is the more desirable solution to this difficult problem."

(c) *Dr. Valdar Jaanusson and Dr. Anders Martinsson* (*Paleontologiska Institution, Uppsala Universitets, Sweden*). " Both alternatives are good solutions of the problem. We are, however, slightly in favour of Alternative A as it seems more in accordance with Matthew's intentions. *Indianites* Ulrich & Bassler, 1931, functions as a direct substitute for the genus which Matthew felt the need to create, and is founded on the false premise that *Indiana ovalis* is the type-species of Matthew's genus."

(d) *Professor J. Chester Bradley* (*Cornell University, Ithaca, New York*). " I concur with Mr. Sylvester-Bradley's Alternative A. It should not be stated that *Indiana lippa* is type of *Indianites* by original designation which it is not . . . Ulrich & Bassler's intention is irrelevant. By proposing *Indianites* as a substitute name for ' *Indiana* ' it automatically acquired the type-species of the latter genus, which we are now asked to designate, under the plenary powers, as *Indiana lippa*."

(e) *Mlle. Colette Dechaseaux* (*Laboratoire de Paléontologie de la Sorbonne, Paris, France*) and (f) *Dr. G. Hemmingsmoen* (*Palaeontological Museum, Oslo, Norway*) preferred Alternative A.

FIRST VOTE OF THE COMMISSION

On 30 December 1957 the Members of the Commission were asked to vote under the Three-Month Rule on Voting Paper (57)72, first for or against the use of the plenary powers to determine the name to be used for the genus of which *Indiana lippa* is the type-species, and secondly, for the acceptance of either (a) *Indiana*, or (b) *Indianites* as the name for that genus. The following report by Mr. Hemming (then Secretary to the Commission) was circulated with the Voting Paper :—

" The purpose of the application submitted in this case was to provide, with the help of the Commission's Plenary Powers, a type-species for the genus *Indiana* Matthew, 1902 (Class Ostracoda) in harmony with accepted usage. For this purpose the applicant (P. C. Sylvester-Bradley) asked the Commission to designate under the above Powers the nominal species *Indiana lippa* Matthew, 1902, to be the type-species of the genus *Indiana* Matthew, 1902 (Sylvester-Bradley, 1957, *Bull. zool. Nomencl.* **13** : 29–31).

" 2. After the publication of the above application, C. J. Stubblefield (Geological Survey and Museum, London) drew attention to a nominal genus *Indianites* Ulrich & Bassler which had been established in 1931 for *Indiana lippa* Matthew on the ground that that species was without a valid generic name. This name had not been mentioned in the original application submitted in this case. Stubblefield gave examples of the usage of *Indianites* and, after stating that he could not accept the statement in the application that ' The genus *Indiana* has been universally accepted as properly founded on *I. lippa* ', concluded as follows :—'As far as the evidence from British literature is concerned, it would appear that 20 years usage of *Indianites* is material to considering the possibility of legalising this name along with the family name INDIANITIDAE, so that stability of nomenclature may be maintained ' (Stubblefield, 1957, *Bull. zool. Nomencl.* **13** : 190).

" 3. Commenting on Stubblefield's communication, Sylvester-Bradley, after explaining that he had not previously been aware of the paper by Ulrich & Bassler of 1931, reviewed the relative advantages of accepting *Indiana lippa* Matthew as the type-species of *Indiana* Matthew and *Indianites* Ulrich & Bassler respectively and expressed his belief that of the two contending names ' the use of the name *Indiana* is more widespread '. He accordingly renewed his support for the acceptance of *Indiana*. This proposal he then styled Alternative 'A'. At the same time he gave the style Alternative ' B ' to Stubblefield's opposing proposal that *Indianites* should be accepted in preference to *Indiana* (Sylvester-Bradley, 1957, *Bull. zool. Nomencl.* **13** : 191–193).

" 4. Upon receipt of Dr. Stubblefield's comment and Mr. Sylvester-Bradley's rejoinder, I asked the latter, as the original applicant in the present case, to furnish the names and addresses of specialists who, in his view, might usefully be invited to comment on the present case. Five replies were received to the enquiry so sent out. Two (R. S. Bassler (Washington, D.C.) and H. B. Whittington (Cambridge, Mass.) replying in place of P. E. Raymond (deceased) favoured the acceptance of *Indianites* ; two (V. Jannusson and A. Martinsson (both of Uppsala) expressed the view that both the *Indiana* solution and the *Indianites* one were ' good solutions of the problem ' but added : ' We are slightly in favour of Alternative "A" ' [i.e. the *Indiana* solution] ; one (Mlle. C. Dechaseaux (Paris)) gave unqualified support to the *Indiana* solution.

" 5. The foregoing consultation cannot be regarded as conclusive by reason of the small number of replies received. It was of value, however, as showing that there is no opposition to the plan for the stabilisation of the generic name to be used for the species *Indiana lippa* Matthew, the only issue being (1) whether under the Plenary Powers that species should be designated as the type-species of the genus *Indiana* Matthew, or (2) whether, through the suppression of the name *Indiana* Matthew under the same Powers, *Indianites* Ulrich & Bassler should be made the undisputedly valid generic name for the species *Indiana lippa* Matthew.

" 6. Both the possible solutions involve the possible use by the Commission of its Plenary Powers and consideration has accordingly been given to the procedure to be adopted in the Voting Paper to be submitted to the Commission in this matter. Clearly what is required is that the Commission should be placed in a position to decide under the foregoing Powers whether the name to be accepted for the genus typified by *Indiana lippa* Matthew shall be *Indiana* Matthew (as proposed by Sylvester-Bradley) or *Indianites* Ulrich & Bassler (as proposed by Stubblefield). Such an opportunity would not necessarily be provided if the Commission were to proceed immediately to a vote on the foregoing alternatives, for such a vote might lead to a situation in which the alternative receiving the majority of the votes cast might nevertheless not receive two out of every three votes cast, with the result that, by reason of the two-thirds majority rule laid down in Plenary Powers cases, a situation of deadlock would arise, neither of the proposed solutions having obtained the approval of the Commission, the one because, although it secured a majority vote, that majority was not a two-thirds majority, the other because it received only a minority of the votes cast. In order to guard against the risk of such a situation arising in the present case, it has been decided to divide the Voting Paper (V.P.(57)72) now submitted into two Parts, namely :—

" (a) Part 1, in which the Members of the Commission will be asked to decide whether, in order to obtain a solution in the present case, the Plenary Powers shall be used in one or other of the senses recommended, i.e. either in the sense recommended by Sylvester-Bradley (in favour of *Indiana*) or in the sense recommended by Subblefield (in favour of *Indianites*).

" (b) Part 2, in which the Members of the Commission will be invited to decide, in the light of the Vote taken on Part 1, whether *Indiana* Matthew or *Indianites* Ulrich & Bassler is to be accepted as the name of the genus having *Indiana lippa* Matthew as type-species.

" *Note* : An affirmative vote by two-thirds of the Commissioners voting on Part 1 of the Voting Paper would put the Commission in a position to take a definite decision by a simple majority on the question submitted in Part 2, namely, whether *Indiana* (Sylvester-Bradley proposal) or *Indianites* (Stubblefield proposal) be accepted as the name for the genus typified by *Indiana lippa* Matthew."

At the close of the Voting Period on 30 March 1958 the state of the voting was as follows :—

A. *Question of the use of the Plenary Powers to determine the name of the genus of which* Indiana lippa *Matthew,* 1902, *is the type-species.*

Affirmative Votes—nineteen (19), received in the following order : Mayr, Holthuis, Riley, Boschma, Hering, Mertens, Lemche, do Amaral, Bonnet, Dymond, Jaczewski, Bodenheimer, Hemming, Chester Bradley, Sylvester-Bradley, Stoll, Tortonese, Kühnelt, Hankó ;

Negative Votes—two (2) : Vokes, Key ;

On leave of absence—one (1) : Miller ;

Votes not returned—two (2) : Cabrera, Prantl.

B. *Acceptance of* Indiana *as the name for that genus* :—

Affirmative votes—twenty (20), received in the following order: Mayr, Holthuis, Riley, Boschma, Hering, Mertens, Lemche, do Amaral, Bonnet, Dymond, Jaczewski, Bodenheimer, Key, Hemming, Chester Bradley, Sylvester-

Bradley, Stoll, Tortonese, Kühnelt, Hankö.

C. *Acceptance of* Indianites *as the name for that genus* :—
None ;
Votes not returned—one (1) : Vokes.

The following comments were sent by Commissioners with their Voting Papers :—

(a) *Dr. Ernst Mayr* (4.i.58). "After a very careful study of the *Indiana* case I have come to the conclusion that *lippa* will have to be considered as the type-species until someone has found evidence that *ovalis* has been fixed as type previously. I am voting for the use of the plenary powers only because I want to protect the name *Indiana* against subsequent upsets."

(b) *Dr. H. E. Vokes* (13.i.58). "When I came to vote on this problem I took occasion to look up the Ulrich & Bassler papers concerned and, as a result, am somewhat upset about it all. This is another case where the Commission has not been given all the facts. In their discussion of the 'Genus *Indiana* Matthew (emended)' these authors state (*Proc. U.S. nat. Mus.* **78** : 68) : 'Genotype *Indiana lippa* Matthew (selected by the writers). In the original description of *Indiana* by Matthew no genotype was designated. The first species following the generic diagnosis is *I. ovalis*, and this species, under the rules generally prevailing in such cases, has been cited as the genotype . . .' (etc., as quoted in *Bull. zool. Nomencl.* **13** : 39, para. 3). Sylvester-Bradley adds 'On the other hand they state that this species (i.e. *I. ovalis*) has been cited as the genotype. Such citation might well qualify as the subsequent selection of the above species as the type-species by these authors themselves.'

"It is of course obvious that such an oblique citation would not stand against the definite citation of *I. lippa* that occurs in the immediately preceding paragraph (and which was not called to the attention of the Commission). In view of the fact that this citation of *I. lippa* accomplishes exactly what was desired there seems no need for the use of the plenary powers, especially since it is stated in the original application that no other citation of a type-species has been found as a result of a search of the literature. It seems to me that only in the event that such another citation had been found could there be any valid excuse for an appeal to the Commission."

(c) *Dr. Ernst Mayr* (18.i.58). "I have addressed to Dr. Bassler an inquiry as to where *ovalis* had been definitely designated as type of the genus *Indiana*, since neither I nor Dr. Whittington have been able to uncover such a designation. From Dr. Bassler's reply it is quite obvious that he, likewise, is not aware of an earlier designation. Apparently, he merely assumed that the first-named species had to be considered automatically the type-species. It is evident that the designation of *lippa* by Ulrich & Bassler was the first valid designation and that *Indianites* is nothing but a synonym. It is also evident that no-one would want to vote for *Indianites* under the circumstances. There is an additional complication . . . The name INDIANIDAE has priority over INDIANITIDAE and it would require special action by the Commission to suppress the prior name. Under all these considerations, the only logical action would be to confirm *Indiana*.

"If the vote of the Commission should come out in favour of *Indiana*, one may let the case rest right there. On the other hand, I feel the matter should be submitted to the Commission once more if the majority should be in favour of *Indianites*. In view of the new facts which show that *Indiana* has not only priority but is the valid name on every possible count, it is obvious that no plenary powers decision of the Commission is needed. However, it would certainly need such an action to suppress the name *Indiana*."

Dr. K. H. L. Key (10.ii.58) "I consider this to be a case that should never have been brought before the Commission. No evidence has been adduced that *ovalis* was ever validly selected as type-species of *Indiana*, for in the only paper that could be considered in this light (the first paper of 1931 by Ulrich & Bassler) those authors repudiated such selection and actually selected *lippa*. Thus the normal application of the Rules leads to the conclusion that *lippa* is the type of *Indiana*. All that the Commission need to do is to rule that *lippa* was validly selected by Ulrich & Bassler and place the names concerned on the appropriate Lists and Indexes."

Professor J. Chester Bradley (21.ii.58). "Although I am voting in favour of alternative A it does not appear that alternative B is clearly set forth, so that those who vote for it may not realise what they are voting for.

"As proposed (*Bull. zool. Nomencl.* **13** : 193, para. 2) B asks that *Indiana* and *Indianites* both be entered on the Official List with different type-species. This can only be done by exercise of the plenary powers (which is not asked for). The reason is that *Indianites* was proposed as a substitute name for *Indiana* (cf. p. 190, para. 2, lines 9 and 10) therefore has the same type-species, is and must remain an objective junior synonym, of the latter name.

"The wording of the Secretary's mimeographed sheet on this case, paragraph 5, is 'through suppression of the name *Indiana*' to make *Indianites* the valid name. This is the correct necessary procedure, but is not what the applicant expected. It will carry with it suppression of the family name INDIANIDAE, which under alternative B was to be entered on the Official List."

On examining the present case with a view to the preparation of an Opinion, the Assistant Secretary took the view that it was not clear that the Vote recorded above had been taken on the basis of all the relevant information, and this view was confirmed by a fresh study of the original literature. It was clear that Ulrich & Bassler (1931, *Proc. U.S. nat. Mus.* **78**(4) : 13) had (a) accepted that *Indiana ovalis* Matthew, 1902 was the type-species of *Indiana*, and (b) had attempted to "transfer the rank of genotype" to *I. lippa* Matthew, 1902. The situation thus disclosed as it affected the use of the plenary powers was explained in a report circulated by the Assistant Secretary on 1 November 1958 which summarized the history of the case and continued :

"5. It would have been possible to declare that *I. ovalis* was the type-species of *Indiana* if Ulrich & Bassler had done 'no more than state that that species was the type-species of the nominal genus concerned, irrespective . . . of whether they had stated or implied, either correctly or otherwise, that that nominal species had been selected by some previous author to be the type-species . . . or that the nominal species in question had become the type-species of that genus through the operation of some rule [in this case the 'first in order

Rule '] not recognised in the *Règles* as a mandatory provision, provided in such a case that they made it clear that they themselves accepted, for whatever reason, the species in question as the type-species of the genus concerned' (see *Bull. zool. Nomencl.* **4** : 181–182). These conditions were in fact fulfilled, as I shall now show.

" 7. In the first Ulrich & Bassler paper referred to (1931, *Proc. U.S. Nat. Mus.* **78**(4) : 13) the following passage occurs (under *Bradoria*) :

> ' The genus *Indiana* is noted above as synonym in part. But if it were insisted that when no genotype is designated the first species following the generic description is to be so regarded, the genus would not stand. The first species, namely, *Indiana ovalis*, is an unquestionable *Bradoria*, being in fact a close ally of *B. rugulosa* and *B. robusta.* In this case, however, we think it advisable to transfer the rank of genotype to *I. lippa* one of two or three clearly congeneric species referred to the genus when it was described by Matthew.'

" 8. In the light of this passage, and of the quotations given in the three previous documents in this case, it is clear that :

(i) Ulrich & Bassler believed (mistakenly) that *Indiana ovalis* was the type-species of *Indiana* by virtue of having been the first species cited by the original author ;

(ii) The same authors also believed (mistakenly) that they could ' transfer the rank of genotype ' to *I. lippa* ;

(iii) On its being pointed out to them that this ' transfer ' was contrary to the *Règles*, they then proposed the nominal genus *Indianites* as a ' substitute for *Indiana* Ulrich & Bassler, 1931 '. Although they did not designate a type-species for *Indianites*, it is clear that it must have the same type-species as *Indiana* Ulrich & Bassler, 1931, *non* Matthew, 1902, namely, *Indiana lippa.*

(iv) The fact that these authors proposed *Indianites* in this way makes it clear that they accepted *Indiana ovalis* as, under the *Règles*, the type-species of *Indiana.* The fact that they were mistaken is not significant in view of the Congress decision quoted in paragraph 6 of this report.

" 9. It therefore appears that it is, in fact, true that the use of the plenary powers to designate *Indiana lippa* as the type-species of *Indiana* is necessary, but that the same species can be designated as the type-species of *Indianites* without the use of the plenary powers. In other words, alternative A of Mr. Sylvester-Bradley's revised proposals (*Bull. zool. Nomencl.* **13** : 191–193) cannot be approved except by the use of the plenary powers, whereas Alternative B can be achieved without exercising those powers.

" 10. Viewed in this light, it is clear that, in terms of Voting Paper (57)72, an affirmative vote for the proposal in the first half of the Voting Paper (that is, a vote for the use of plenary powers) was tantamount to a vote in favour of *Indiana* as being the name to be added to the Official List as the name of the genus of which *Indiana lippa* is the type-species, since Alternative B of the second half of that Voting Paper could be achieved without the use of the plenary powers. This is the opposite of the view expressed by Dr. Vokes, Dr. Mayr and Dr. Key, who held that it was Alternative A on the second half of that Voting Paper that could be achieved by automatic action.

" 11. The procedural question thus raised is one of some delicacy since those Members of the Commission (more than the necessary two-thirds) who voted for the use of plenary powers in this case did so in the belief that the use of those powers was necessary to achieve either of the objectives sought (see paragraph 6 of the note by Mr. Hemming circulated with V.P.(57)72 : ' Both the possible solutions involve the possible use by the Commission of its plenary powers . . . ') whereas in the light of the present report, the question of whether the plenary powers are to be used or not is one of principle, the answer to which virtually decides the issue one way or the other. I therefore propose to disregard the vote taken on V.P.(57)72 on the grounds that it was taken on the basis of incomplete information, and that since the information necessary to an informed judgement has come to light before the publication of the previous decision, it is legitimate to resubmit the question to the Commission in a revised form.

" 12. In order that there may be no doubt in the mind of any Member of the Commission as to the issue depending on his vote, I append detailed proposals in respect of two alternatives. An affirmative vote for the first alternative will involve the use of the plenary powers (in favour of Mr. Sylvester Bradley's proposals on behalf of *Indiana*) and will require a two-thirds majority. If a majority less than a two-thirds majority of members vote for this alternative, the case will be dealt with under the terms of Declaration 34. An affirmative vote for the second alternative (in favour of Dr. Stubblefield's proposal on behalf of *Indianites*) will require only a simple majority. I also enclose, for the information of Members of the Commission, a copy of V.P.(57)72 and of the accompanying note by Mr. Hemming.

ALTERNATIVE "A"

(1) The Commission to use its plenary powers (a) to set aside all type-selections for the genus *Indiana* Matthew, 1902, made prior to the Ruling now asked for, and (b) having done so, to designate *Indiana lippa* Matthew, 1902, as type-species of the foregoing genus ;

(2) to place the following name on the Official List of Generic Names in Zoology ; *Indiana* Matthew, 1902 (gender : feminine) (type-species by designation under the plenary powers under (1)(b) above : *Indiana lippa* Matthew, 1902) ;

(3) to place the following name on the Official List of Specific Names in Zoology : *lippa* Matthew, 1902, as published in the combination *Indiana lippa* (specific name of the type-species of *Indiana* Matthew, 1902) ;

(4) to place the following name on the Official List of Family-Group Names in Zoology : INDIANIDAE Ulrich and Bassler, 1931 (type-genus : *Indiana* Matthew, 1902);

(5) place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology :—

  (a) *Indianites* Ulrich & Bassler, 1931 (*J. Wash. Acad. Sci.*) (type-species by original designation : *Indiana lippa* Matthew, 1902 (a junior objective synonym of *Indiana* Matthew, 1902);

(b) the under-mentioned junior homonyms of *Indiana* Matthew, 1902:—

(i) *Indiana* Tutt, 1903;

(ii) *Indiana* Chakravatz, 1943;

(6) place the following name on the Official Index of Rejected and Invalid Family-Group Names in Zoology:—

INDIANITIDAE Ulrich & Bassler, 1931 (*J. Wash. Acad. Sci.*) (a junior objective synonym of INDIANIDAE Ulrich & Bassler, 1931 (*Proc. U.S. nat. Mus.*).

ALTERNATIVE "B"

(1) to place the following names on the Official List of Generic Names in Zoology:—

(a) *Bradoria* Matthew, 1899 (gender: feminine) (type-species by selection by Ulrich & Bassler (1931, *Proc. U.S. Nat. Mus.*) *Bradoria scrutator* Matthew, 1899);

(b) *Indiana* Matthew, 1902 (gender: feminine) (type-species, by selection by Ulrich & Bassler, 1931, *Indiana ovalis* Matthew, 1902), (for use by those who may consider that *Bradoria scrutator* and *Indiana ovalis* represent generically distinct taxa);

(c) *Indianites* Ulrich & Bassler, 1931 (gender: masculine) (type-species by original designation, *Indiana lippa* Matthew, 1902).

(2) to place the following names on the Official List of Specific Names in Zoology:—

(a) *scrutator* Matthew, 1899, as published in the binomen *Bradoria scrutator* (specific name of the type-species of *Bradoria* Matthew, 1899);

(b) *ovalis* Matthew, 1902, as published in the combination *Indiana ovalis* (specific name of type-species of *Indiana* Matthew, 1902);

(c) *lippa* Matthew, 1902, as published in the binomen *Indiana lippa* (specific name of the type-species of *Indianites* Ulrich & Bassler, 1931).

(3) place the following names on the Official List of Family-Group Names in Zoology:—

(a) BRADORIIDAE Matthew, 1902 (type-genus: *Bradoria* Matthew, 1899);

(b) INDIANIDAE Ulrich & Bassler, 1931 (*Proc. U.S. nat. Mus.*) (type-genus *Indiana* Matthew, 1902) (for use by any taxonomists who may consider that *Bradoria scrutator* and *Indiana ovalis* represent distinct family-group taxa);

(c) INDIANITIDAE Ulrich & Bassler, 1931 (*J. Wash. Acad. Sci.*). (type-genus *Indianites* Ulrich & Bassler, 1931 (*J. Wash. Acad. Sci.*)).

(4) place the following junior homonyms of *Indiana* Matthew, 1902, on the Official Index of Rejected and Invalid Generic Names in Zoology:—

(a) *Indiana* Tutt, 1903;

(b) *Indiana* Chakravatz, 1943."

DECISION OF THE COMMISSION

The above report was circulated with Voting Paper (O.M.)(58)6 issued under the One-Month Rule. At the close of the Voting Period on 1 December 1958 the state of the voting was as follows :—

For Alternative "A"—fifteen (15), received in the following order : Boschma, Holthuis, Dymond, Hering, Hemming, Tortonese, Mayr, Key, Stoll, Jaczewski, Brinck, Hankó, Bonnet, Lemche, Cabrera ;

For Alternative "B"—five (5) : Prantl, Mertens, do Amaral, Riley, Bodenheimer ;

On leave of absence—two (2) : Bradley (J.C.), Miller ;

Votes not returned—two (2) : Kühnelt, Vokes.

The following comments were sent by Commissioners with their votes :—

(a) *Dr. L. B. Holthuis* (4.x.58). "As I see it, there are two possibilities, either (i) Ulrich & Bassler only selected *I. lippa* as the type for *Indiana*, in which case the plenary powers are not needed for Alternative 'A', but are to be used to validate Alternative ' B ', or (ii) there are two type-indications in Ulrich & Bassler's paper, namely, both for *I. lippa* and *I. ovalis*, in this case probably the first reviser, namely, Ulrich & Bassler themselves (1931, *J. Wash. Acad. Sci.* **21** : 364) has to be followed which would make *I. ovalis* the type of *Indiana*, now the plenary powers indeed have to be used as suggested by you. Though I personally do not think it necessary to use the plenary powers for validating *Indiana lippa* as the type-species of the genus *Indiana*, I am perfectly willing to let them be used to that end."

(b) *Professor Ernst Mayr* (21.xi.58).—" I disagree with your interpretation. Ulrich & Bassler nowhere state what you claim under paragraph 8(1). They clearly say (: 7) : ' *If* it were insisted . . . ', but their own actions clearly show that they do not follow this reasoning."

(c) *Dr. K. H. L. Key* (17.xi.58).—" I still do not regard it as established that Ulrich & Bassler accepted *in their first* 1931 *paper* that *ovalis* was the valid type-species. Their use of the subjunctive in the conditional clause quoted in your para. 7 suggests that their word ' transfer ' means simply ' transfer from the species to which the rank has been invalidly attached '. However, I will vote any way that establishes *Indiana* and settles the matter."

Original References

The following are the original references for the generic, specific and family-group names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

Indiana Matthew, 1902, *Canadian Rec. Sci.* Montreal **8** : 460

Indianites Ulrich & Bassler, 1931, *J. Wash. Acad. Sci.* **21** : 364

Indiana Tutt, 1903, *Ent. Rec.* **15** : 101

Indiana Chakravatz, 1943, *Current Sci.* **12** : 257

lippa, *Indiana*, Matthew, 1902, *Canadian Rec. Sci.* Montreal **8** : 461

INDIANIDAE Ulrich & Bassler, 1931, *Proc. U.S. nat. Mus.* **78** : 68

INDIANITIDAE Ulrich & Bassler, 1931, *J. Wash. Acad. Sci.* **21** : 364.

CERTIFICATE

We certify that the votes cast on Voting Papers (57)72 and (O.M.)(58)6 were cast as set out above, that the proposals set out in those Voting Papers have been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the Ruling given in the present Opinion No. 570.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *May* 1959

OPINION 571

DESIGNATION UNDER THE PLENARY POWERS OF LECTOTYPES FOR THREE SPECIES OF GRAPTOLITES

RULING.—(1) The following action is hereby taken under the plenary powers :—

All lectotype selections hitherto made for the nominal taxa specified in Col. 1 below are hereby set aside, and the specimens specified in Col. 2 are hereby designated as their respective lectotypes.

Col. 1	Col. 2
(a) *Monograptus fimbriatus* var. *similis* Elles, G. L. & Wood, E. M. R., 1913	The specimen illustrated by Elles & Wood as text-fig. 339 now preserved in the Sedgewick Museum, Cambridge (Regd. No. A21479).
(b) *Monograptus triangulatus* var *major* Elles & Wood, 1913.	The specimen illustrated by Elles & Wood as text-fig. 328b now preserved in the collection of the Geological Survey and Museum, London (Regd. No. 26326).
(c) *Monograptus communis* var. *rostratus* Elles & Wood, 1913.	The specimen illustrated by Elles & Wood as fig. 2b on pl. xlix (which is also the specimen shown in text-fig. 337) now preserved in the collection of the Geological Survey of Great Britain (Edinburgh Office) (Regd. No. 2360).

(2) The under-mentioned specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified below :—

(a) *similis* Elles, G. L. & Wood, E. M. R., 1913, as published in the combination *Monograptus fimbriatus* var. *similis* and as interpreted by the lectotype designated under the plenary powers in (1)(a) above (Name No. 1673) ;

(b) *triangulatus* Harkness, R, 1851, as published in the binomen *Rastrites triangulatus* (Name No. 1674) ;

(c) *major* Elles, G. L. & Wood, E. M. R., 1913, as published in the combination *Monograptus triangulatus* var. *major* and as interpreted by the lectotype designated under the plenary powers in (1)(b) above (Name No. 1675) ;

(d) *communis* Lapworth, C., 1876, as published in the combination *Monograptus convolutus* var. *communis* (Name No. 1676) ;

(e) *rostratus* Elles, G. L. & Wood, E. M. R., 1913, as published in the combination *Monograptus communis* var. *rostratus* and as interpreted by the lectotype designated under the plenary powers in (1)(c) above (Name No. 1677).

Bull. zool. Nomencl., vol. 17, pts. 3–5. December 1959.

HISTORY OF THE CASE (Z.N.(S.) 1248)

On 2 August 1957, Professor O. M. B. Bulman (Department of Geology, Cambridge University, England) sent a preliminary enquiry to the Office of the Commission on the possible use of the plenary powers to set aside, in the interests of stability of nomenclature, injudicious lectotype-selections for three species of graptolites. Professor Bulman's definitive application was sent to the printer on 11 September 1957 and was published on 30th December 1957 in *Bull. zool. Nomencl.* **13**(10/11) : 313–317.

Public Notice of the possible use by the Commission of its plenary powers in this case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to three palaeontological serials.

The following comments were received :—

(a) *Dr. C. J. Stubblefield* (*Geological Survey and Museum, London*).—" I support Professor O. M. B. Bulman's application for the revised designation of lectotypes of the Silurian graptolites, *Monograptus fimbriatus similis*, *M. triangulatus major* and *M. convolutus communis* in accordance with the intention of the original authors of these species, the Misses Gertrude L. Elles and E. M. R. Wood, and with long usage, since I believe such lectotype designations to be in the interests of stability of nomenclature."

(b) *Dr. Alois Pribyl* (*Ceskoslovenská Akademie ved Horniký Ustav, Prague, Czechoslovakia*).—" I request the International Commission on Zoological Nomenclature to judge, before taking a decision, my comments as follows :

" (i) In paragraph ' Case No. 1 ' Dr. O. M. B. Bulman states that the selection of lectotype from the syntypes figured by G. Elles and E. Wood (1913) on pl. 48, figs. 5a–d and text-fig. 339 was not correct when I, with A. Munch, in 1941 selected as the lectotype of this subspecies (*Demirastrites fimbriatus similis*) the specimen figured by Elles and Wood as fig. 5a (on pl. 48). Dr. Bulman asserts that the examined specimen (lectotype fig. 5a) ' is inaccurate and misleading, since the proximal end of this specimen does not in fact show the sicula, and it can only be identified as *similis* with reserve '.

" With Dr. O. Bulman's view and proposal can neither I nor A. Munch agree because the specimen figured on fig. 5a (pl. 48) has a well developed sicular part and constitutes (according to the figure) the best representative of this subspecies that was then figured by both authors (1913). From that clearly follows that the figures in the Monograph of Elles and Wood are either correctly designed and pictured (for I do not know why both authors should have completed the design according to their imagination) or they completed the pictures, in fact, from imagination, and then that Monograph does not constitute an accurate scientific work on which a revising author could rely. Considering that the selection of lectotypes was carried out during World War II (1941), both revising authors (A. Pribyl and A. Munch) could not study directly the figured types.

" Nevertheless it is, however, not necessary to replace the selected type (lectotype) by a different selection, as suggested by Dr. O. M. B. Bulman (1957 : 314), because the selected specimen possesses the typical features of subspecies *similis*, i.e. a larger number of thecae on 10 mm. and other characteristics. I recommend the International Commission on Zoological Nomenclature not to approve Dr. Bulman's suggestion as it is against the rules of the zoological nomenclature.

" (ii) To ' Case No. 2 '. Also in this case Dr. Bulman suggests that the lectotype selected by us (A. Pribyl and A. Munch) of subspecies *Demirastrites triangulatus major* (Elles and Wood, 1913) should again be replaced by the selection of a different specimen (text-fig. 328b). Dr. Bulman asserts that the type selected by us (specimen figured by Elles and Wood, pl. 47, fig. 5a) is not typically representative of this subspecies (*major*), but belongs according to him to the subspecies *triangulatus triangulatus* Harkness.

" Before the Commission takes a decision in this case, I request you to enable me to examine personally the lectotype selected by us (fig. 5a) by your kindly asking Dr. O. Bulman to lend this type for redetermination, eventually to lend me a photocopy of this type. Then perhaps (in case Dr. Bulman be right) there could be carried out a change in the new selection of lectotype. As far as I know it is the duty of every revising author, if he ascertains any mistakes of the previous author, to inform the latter thereof (if he still lives) and to ask him to correct the ascertained errors.

" (iii) To ' Case No. 3 '. In this case Dr. O. Bulman suggests something that is directly against all rules of zoological nomenclature by asking the Commission to approve a new lectotype (fig. 2b) instead of the lectotype chosen earlier by myself in 1946 (fig. 2a). His comment that this selection might lead to mistaking the new species for specimens known under the name of *rostratus* (*communis rostratus*) Elles and Wood, 1913, is quite absurd. Considering that the lectotype was selected as early as in the year 1946, it is necessary (to avoid confusion in the zoological nomenclature) to maintain the validity of this selection, and specimens belonging to the determined type will be named *rostratus* Elles and Wood, as both authors (G. Elles and E. Wood) considered the selected specimen as a ' typical specimen ' and therefore as a representative of their new subspecies (*communis rostratus*). Whether some of the specimens figured by G. Elles and E. Wood (1913) may be considered as a new different species (as supposed by Dr. Bulman) is a matter of opinion and progress of science and its development, and such a new species may be selected out of the original syntypes, excepting of course the lectotype. The denomination of ' *rostratus* ' may carry only that group of specimens which is grouped around the selected lectotype and different forms may be renamed or eventually transferred to another already known or new species, out of which the holotype (of the new species) may be then selected.

" I hope that the International Commission on Zoological Nomenclature will consider all my comments and take such a point of view as will confirm and strengthen the priority and nomenclature of our Zoological and Paleontological Science. Already Dr. Bulman's suggestion, first of all in ' Case No. 3 ', is such a typical example of causing confusion in nomenclature."

(c) *Dr. H. W. Ball* (*British Museum* (*Natural History*) *London*).—" I wish to express my support for the proposal made by Professor Bulman regarding the designation of lectotypes for three taxa of Triangulate Monograptids. This proposal is based upon the results of a re-investigation of the type material itself and is, in my opinion, the most practicable method of preventing considerable confusion in the taxa concerned."

(d) *Dr. Isles Strachan* (*University of Illinois, Department of Geology, Urbana, Illinois, U.S.A.*).—" I wish to give my full support to the application before the Commission concerning the lectotypes of three graptolite taxa. It is unfortunate that no types were designated in the ' Monograph of British Graptolites ' for the new species described in that work but the authors clearly distinguished on several occasions between ' type specimen ' and ' typical specimen ' so that the latter expression cannot be regarded as an unequivocal designation of a type. I feel also that designation of lectotypes of the British taxa should involve re-examination of the original material and should not be merely a passing reference without further illustration or discussion as is the case with these three taxa."

(e) *Professor Leif Störmer* (*University of Oslo, Institute of Geology, Oslo, Norway*).—" Since the lectotypes chosen by Dr. Pribyl do not correspond to the original description of the varieties, it seems justifiable to establish new ones among the originally figured specimens."

(f) *Professor O. M. B. Bulman* (*University of Cambridge, Sedgwick Museum, Cambridge*).—" I am surprised to learn that Dr. Pribyl is opposing the application which I made recently regarding the lectotypes of certain monograptids (*Bull. zool. Nomencl.* **13** : 313–317), for I cannot see what possible objection there can be to the selection of lectotypes which show the characters of the species they are intended to define, and which maintain the current usage of the names *similis*, *major* and *rostratus*. I am sorry if Dr. Pribyl considers any part of it to be lacking in courtesy ; no discourtesy was intended, any more than by himself, I imagine, in selecting lectotypes without consulting Dr. G. L. Elles (surviving author of the names concerned).

" The Commissioners will, I am sure, realise that the whole purpose of Dr. Margaret Sudbury's revision of this group of monograptid species has been to bring up to date the rather inadequate 45-year old descriptions and figures in the *Monograph of British Graptolites*. Anyone who has attempted to determine material of these triangulate monograptids will realise that such revision was necessary. To do this involves careful preparation and description of complete and well-preserved pyritised specimens in full relief, and the evaluation and interpretation of compressed examples (as many of those figured by earlier authors). This naturally may lead to some emendation as well as considerable amplification of the short original descriptions, and it can only be done by someone who has access to all the original material.

" *Case no. 1.* Having examined all the specimens concerned (which Dr. Pribyl was unable to do) I can only re-affirm that the specimen he selected as lectotype (Elles & Wood, pl. 48, fig. 5a) does not provide any definitive indication of the sicula. It is therefore impossible to determine whether the first theca shown on the rhabdosome is really th1 or th2. The characters of th1, which are diagnostic of the variety *similis* (according to Elles & Wood, and Dr. Sudbury's revision) cannot therefore be precisely determined on this specimen. The number of thecae per centimetere is not in itself a reliable feature (being readily affected by preservation, and not easy to determine on a curved rhabdosome), and Dr. Pribyl does not state what ‘ other characteristics ’ he claims render any alternative selection unnecessary. There is no such uncertainty concerning the specimen represented in text-fig. 339, the interpretation of which is not open to doubt.

“ That fig. 5a should be inaccurate in the representation of the sicula is perhaps due to the quality of optical equipment available nearly fifty years ago. I would repudiate any suggestion that the figure was deliberately misleading, and I would hardly expect any experienced palaeontologist to suggest that inaccuracy in this particular detail in one figure detracts appreciably from the value of the Monograph, or reflects on the ability of the authors.

“ *Case no.* 2. This again seems to me a straightforward case. The variety *major* was erected for forms in which ‘ the thecae [are] much longer than in the typical form, approximately seven-eighths of the total length being isolate ’. Now the thecae of the specimen illustrated (Elles & Wood, pl. 47, fig. 5a) are in the early part of the rhabdosome triangular and well spaced, and the later ones are even broader. They are, in fact, not more than 2.0 mm. in height, compared with 1.9 mm. in *triangulatus* and 2.25 to 3.0 mm. in var. *major*. This is why we suggest that the specimen selected by Dr. Pribyl is not typical, but on the contrary is very nearly true *triangulatus* ; in the lectotype we propose (text-fig. 328b), the thecal height is 2.2. mm. I am unable to offer any explanation as to why the other was ever figured by Elles & Wood as *major*.

“ *Case no.* 3. I cannot see what has so incensed Dr. Pribyl about this proposal, or why it is contrary to all rules. The specimen selected by him as lectotype (Elles & Wood, pl. 49, fig. 2a) is, in its detailed thecal characters, quite distinct from the others figured and from what has been taken to represent *rostratus*. The difference lies in the apertural parts of the metathecae, which are slender and more like those of Tornquist’s *M. nobilis* than the broad apertural ‘ hooks ’ of the *M. communis* group. No great weight need be attached to Elles & Wood’s comment ‘ typical specimen ’ (in reference to fig. 2a), since the specimen we propose (fig. 2b) as lectotype is not only a ‘ typical specimen ’, but is also ‘ well preserved ’.

“ Here again I think the disparity in thecal form passed unnoticed by the authors of the Monograph, who were perhaps not drawing their species and varieties so precisely and were using optical equipment which would be judged inefficient by modern standards. What we suggest can cause no confusion whatever, but if the Commission decides that Dr. Pribyl’s selection must stand, then a new name will have to be found for what is currently accepted as *rostratus*, and to my mind this does introduce confusion.”

DECISION OF THE COMMISSION

On 7 July 1958 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (58)15 either for or against the proposals set out in points (1) and (2) on *Bull. zool. Nomencl.* **13** : 315–317, paragraph 8.

At the close of the Voting Period on 7 October 1958 the state of the voting was as follows :—

(a) Affirmative Votes—twenty (20), received in the following order : Holthuis, Boschma, Bodenheimer, Hemming, Vokes, Riley, Hankó, Hering, Mayr, Lemche, Mertens, Jaczewski, Brinck, Dymond, do Amaral, Stoll, Cabrera, Kühnelt, Tortonese, Bonnet ;

(b) Negative Votes—one (1) : Prantl ;

(c) On leave of absence—three (3) : Bradley, Key, Miller ;

(d) Votes not returned—none.

ORIGINAL REFERENCES

The following are the original reference for the specific names placed on Official Lists by the Ruling given in the present Opinion :—

similis, Monograptus, Elles, G. L. & Wood, E. M. R., 1913, *Mon. Brit. Grapt.*, Palaeont. Soc. (9) : 483, pl. xlviii, figs. 5a–d, text-fig. 339

triangulatus, Rastrites, Harkness, R., 1851, *Quart. J. geol. Soc. Lond.* **7** : 59, pl. 1, figs. 3a–d

major, Monograptus triangulatus, Elles, G. L. & Wood, E. M. R., 1913, *Mon. Brit. Grapt.*, Palaeont. Soc. (9) : 472, pl. xlvii, figs. 5a–d, text-figs. 328 a, b.

communis, Monograptus convolutus, Lapworth, C., 1876, *Geol. Mag.* **13** : 358, pl. xiii, figs. 4 a, 4b.

rostratus, Monograptus communis, Elles, G. L. & Wood E. M. R., 1913, *Mon. Brit. Grapt.*, Palaeont. Soc. (9) : 481, pl. xlix, figs. 2a–c, text-fig. 337

CERTIFICATE

WE certify that the votes cast on Voting Paper (58) 15 were cast as set out above, that the proposal set out in the Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion 571.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *May* 1959

OPINION 572

SUPPRESSION UNDER THE PLENARY POWERS OF THE GENERIC NAME *CALANDRA* CLAIRVILLE & SCHELLENBERG, 1798, AND VALIDATION UNDER THE SAME POWERS OF THE SPECIFIC NAME *ABBREVIATUS* FABRICIUS, 1787, AS PUBLISHED IN THE BINOMEN *CURCULIO ABBREVIATUS* (CLASS INSECTA, ORDER COLEOPTERA)

RULING.—(1) The following action is hereby taken under the plenary powers:

(a) the following names are suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:
  (i) the generic name *Calandra* Clairville & Schellenberg, 1798;
  (ii) the specific name *elegans* Fourcroy, 1785, as published in the binomen *Curculio elegans*;

(b) the specific name *abbreviatus* Fabricius, 1787, as published in the binomen *Curculio abbreviatus* (a junior primary homonym of *Curculio abbreviatus* Linnaeus, 1758), is hereby validated;

(c) the emendation to *oryzae* of the specific name *oryza* Linnaeus, 1763, as published in the binomen *Curculio oryza*, is hereby validated.

(2) The following generic names in the Class Insecta, Order Coleoptera, are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Diaprepes* Schoenherr, 1823 (gender: masculine), type-species, by original designation, *Curculio spengleri* (emend. of *sprengleri*) Linnaeus, 1767 (Name No. 1374);

(b) *Sitophilus* Schoenherr, 1838 (gender: masculine), type-species, by original designation, *Curculio oryzae* Linnaeus, 1763 (Name No. 1375);

(c) *Sphenophorus* Schoenherr, 1838 (gender: masculine), type-species, by original designation, *Curculio abbreviatus* Fabricius, 1787 (Name No. 1376).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the name numbers specified:

(a) *abbreviatus* Linnaeus, 1758, as published in the binomen *Curculio abbreviatus* (Name No. 1678);

(b) *granarius* Linnaeus, 1758, as published in the binomen *Curculio granarius* (Name No. 1679);

(c) *oryzae* (emend. under the plenary powers in (1)(c) above of *oryza*) Linnaeus, 1763, as published in the binomen *Curculio oryzae* (type-species of *Sitophilus* Schoenherr, 1838) (Name No. 1680);

(d) *abbreviatus* Fabricius, 1787, as published in the binomen *Curculio abbreviatus*, validated under the plenary powers in (1)(b) above (type-species of *Sphenophorus* Schoenherr, 1838 (Name No. 1681).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the name numbers specified:

Bull. zool. Nomencl. vol. 17, pts. 3–5. December 1959.

(a) *Calandra* Clairville & Schellenberg, 1798, suppressed under the plenary powers in (1)(a)(i) above (Name No. 1286) ;

(b) *Calendra* Clairville & Schellenberg, 1798, an invalid original spelling for *Calandra* through the action of J. C. Fabricius, 1801 as " first subsequent user " (Name No. 1287) ;

(c) the following junior homonyms of *Calandra* Clairville & Schellenberg, 1798 :
  (i) *Calandra* Rafinesque, 1815 (Name No. 1288)[1];
  (ii) *Calandra* Oken, 1817 (Name No. 1289) ;
  (iii) *Calandra* Brookes, 1830 (Name No. 1290) ;
  (iv) *Calandra* Lesson, 1837 (Name No. 1291) ;
  (v) *Calandra* Gistl, 1848 (Name No. 1292) ;

(d) the following junior homonyms of *Sphenophorus* Schoenherr, 1838 :
  (i) *Sphenophorus* Newberry, 1890 (Name No. 1293) ;
  (ii) *Sphenophorus* Breitfuss, 1898 (Name No. 1294).

(5) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified :

(a) *elegans* Fourcroy, 1785, as published in the binomen *Curculio elegans* (suppressed under the plenary powers in (1)(a)(ii) above) (Name No. 598) ;

(b) *oryza* Linnaeus, 1763, as published in the binomen *Curculio oryza* (ruled under the plenary powers in (1)(c) above to be an invalid original spelling for *oryzae*) (Name No. 599) ;

(c) *sprengleri* Linnaeus, 1767, as published in the binomen *Curculio sprengleri* (an invalid original spelling for *spengleri*) (Name No. 600) ;

(d) *decurtatus* Gmelin, [1790], as published in the binomen *Curculio decurtatus* (a junior objective synonym of *abbreviatus* Fabricius, 1787, as published in the binomen *Curculio abbreviatus*) (Name No. 601).

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology, with the Name Numbers specified :

(a) CALANDRINI (correction of CALANDRAEIDES) Schoenherr, 1826 (invalid under Declaration 20 because the name of its type-genus (*Calandra* Clairville & Schellenberg, 1798) has been suppressed under the plenary powers in (1)(a)(i) above) (Name No. 306) ;

(b) CALANDRAEIDES Schoenherr, 1826 (an invalid original spelling for CALANDRINI) (Name No. 307) ;

(c) CALANDRADAE Guilding, 1828 (invalid under Declaration 20) (Name No. 308) ;

(d) CALANDRIDES Schoenherr, 1837 (an incorrect spelling for CALANDRINI) (Name No. 309) ;

(e) CALENDRINAE Leng, C. W., 1920 (an erroneous subsequent spelling for CALANDRINI) (Name No. 310).

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[1] The item " *Calandra* Fitzinger, 1815 " in *Bull. zool. Nomencl.* **16** : 46 was a *lapsus calami*.—*Editor*.

HISTORY OF THE CASE (Z.N.(S.) 255)

The present case began in 1944 with attempts by the then Secretary to the Commission, Mr. Francis Hemming, to obtain information to elucidate a statement by G. A. K. Marshall, 1940 (*Bull. Ent. Res.* **31** : 125) to the effect that an application was about to be made to the Commission for the preservation of the generic name *Calandra* Clairville & Schellenberg, 1798. The difficult and complicated steps which led finally to its submission to the Commission are fully explained in the Secretary's report (*Bull. zool. Nomencl.* **16** : 5–47). Public Notice of the possible use of the plenary powers in this case was given in the part of the *Bulletin* in which the Secretary's report was published as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials.

The Secretary's report was based in part on a questionnaire sent to specialists in Coleoptera. Of the 28 replies, 16 were in favour of the proposals put forward, while 10 and 2 respectively supported other possible alternative solutions. Three comments were received after the publication of the report, as follows :

(a) *J. Balfour-Browne* (*British Museum* (*Natural History*), *London*).—" In his report . . . Hemming has listed (: 41) the views of specialists on the question whether it is desirable that the specific name *abbreviatus* Fabricius, 1787—a junior homonym of the Linnean species *Curculio abbreviatus* (1758)—should be validated under the plenary powers. The majority opinion was in favour of such validation and accordingly Hemming proposes (: 45) that the name be validated. As the record shows (: 43–44) I first approved and then retracted from this proposal. Since that correspondence the Draft Rules to be considered at the forthcoming Congress in London have been circulated. In these Draft Rules a new 'Article 5 ' has been included concerning Continuity and Universality of Usage, and Section 3 of this Article, entitled ' Principle of Conservation ', appears to me to be strictly relevant to this matter. The principle states : ' If a name for a taxon that is not an invalid homonym is in general current use . . . ' In my retraction of my original standpoint in this matter I used the words ' I think the principle of primary homonymy should be preserved . . . convenience should here give way to principle.' I earnestly desire to submit to the Commission that they should give profound consideration, when the case is before them, whether there is, in this matter, sufficient ground for overriding both the principle of primary homonymy and that enunciated in the new Article containing the principle of conservation. It appears to me to be a matter of serious concern that principles which are so soon to be re-affirmed at Congress should be so easy to reject by the proposed exercise of plenary powers and that such action may tend to bring the Rules themselves into disrepute."

(b) *Dr. F. Zacher* (*University of Berlin/Charlottenburg, Germany*).—" I am still of the opinion that the name *Calandra granaria* Linnaeus has to be retained for the corn weevil, since this name has been used for a long time in literature, and especially in papers dealing with stores-destroying pests [references quoted in support]."

(c) *F. J. Gay* (*Commonwealth Scientific and Industrial Research Organization, Canberra, Australia*).—" Having considered all the evidence presented in this report, I find no reason to change my original opinion, and accordingly, am in favour of the International Commission following the course of action laid down in Appendix 4 of the report."

DECISION OF THE COMMISSION

An unusual factor in the present case is that it is proposed to validate a junior homonym (*Curculio abbreviatus* Fabricius, 1787) without suppressing the senior homonym (*Curculio abbreviatus* Linnaeus, 1758). In accordance with an undertaking given by Mr. Hemming, this issue was treated separately from the other issues involved in submitting the case to the Commission for a vote. Two Voting Papers were therefore sent to the Members of the Commission on 1 November 1958. The first (Voting Paper (58)17) called for a vote for or against the proposals set out in *Bull. zool. Nomencl.* **16** : 45–47 with the exception of proposal 1(b) (the *abbreviatus* question). At the close of the Three-Month voting period on 1 February 1959, the state of the voting was as follows :

Affirmative Votes—twenty-one (21), received in the following order : Boschma, Holthuis, Dymond, Hering, Prantl, Mertens, do Amaral, Hemming, Mayr, Key, Riley, Bonnet, Lemche, Bodenheimer, Hankó, Jaczewski, Bradley, Tortonese, Cabrera, Brinck, Vokes.

Negative Votes—one (1) : Kühnelt.

On leave of absence—two (2) : Stoll, Miller.

Votes not returned—none (0).

Voting Paper (58)18, distributed at the same time, called for a vote for or against the use of the Plenary Powers to validate the junior homonym *abbreviatus* Fabricius, 1787 (*Curculio*). At the close of the voting period, the state of the voting was as follows :

Affirmative Votes—seventeen (17), received in the following order : Dymond, Hering, Prantl, Hemming, Mayr, Key, Riley, Bonnet, Lemche, Hankó, Jaczewski, Bradley, Tortonese, Cabrera, Kühnelt, Brinck, Vokes.

Negative Votes—five (5) : Boschma, Holthuis, Mertens, do Amaral, Bodenheimer.

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

abbreviatus, *Curculio*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 386
abbreviatus, *Curculio*, J. C. Fabricius, 1787, *Mantissa Ins.* **1** : 99
Calandra Brookes, 1830, *Mus. Brookes* : 93
Calandra Clairville & Schellenberg, 1798, *Ent. helv.* **1** : pl. 2
Calandra Gistl, 1848, *Nat. Thierr.* : 136
Calandra Oken, 1817, *Isis* (Oken), **1817** : 1184
Calandra Rafinesque, 1815, *Analyse Nat.* : 68
CALANDRADAE Guilding, 1828, *Trans. Soc. Encour. Arts* **46** : 143
CALANDRAEIDES Schoenherr, 1826, *Curcul. Disp. meth.* : 23, 323
CALANDRIDES Schoenherr, 1837, *Gen. Spec. Curcul.* 4(2) : 790
CALANDRINI (correction of CALANDRAEIDES) Schoenherr, 1826, *Curcul. Disp. meth.* : 23, 323

Calendra Clairville & Schellenberg, 1798, *Ent. helv.* **1** : 62
CALENDRINAE C. W. Leng, 1920, *Cat. Col. America N. of Mexico* : 335
decurtatus, Curculio Gmelin, [1790], *in* Linnaeus, *Syst. Nat.* (ed. 13) **1**(4) : 1747
Diaprepes Schoenherr, 1823, *Isis* (Oken), **1823** : 1140
elegans, Curculio, Fourcroy, 1786, *Ent. paris.* (1) : 118
granarius, Curculio Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 378
oryza, Curculio, Linnaeus, 1763 (an invalid original spelling for *oryzae*)
oryzae, Curculio, Linnaeus, 1763 (emend. of *oryza*), *Amoen. acad.* **6** : 395
Sitophilus Schoenherr, 1838, *Gen. Spec. Curcul.* **4**(2) : 967
Sphenophorus Breitfuss, 1898, *Mém. Acad. Sci. St. Petersburg* (8) **6** : 4, 5
Sphenophorus Newberry, 1890, *Monogr. U.S. Geol. Surv.* **16** : 91
Sphenophorus Schoenherr, 1838, *Gen. spec. Curcul.* **4**(2) : 874
sprengleri, Curculio, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1**(2) : 609.

CERTIFICATE

WE certify that the votes cast on Voting Papers (58)17 and 18 were cast as set out above, that the proposals set out in those Voting Papers have been duly adopted under the plenary powers, and that the decisions so taken, being the decisions of the International Commission, are truly recorded in the present Opinion No. 572.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *May* 1959

OPINION 573

DETERMINATION UNDER THE PLENARY POWERS OF A LECTOTYPE FOR THE NOMINAL SPECIES *HELIX VIVIPARA* LINNAEUS, 1758, AND ADDITION TO THE OFFICIAL LISTS OF THE GENERIC NAME *VIVIPARUS* MONTFORT, 1810, AND THE FAMILY-GROUP NAME VIVIPARIDAE GRAY, 1847 (CLASS GASTROPODA)

RULING.—(1) Under the plenary powers:

(a) all previous selections of lectotypes for the nominal species *Helix vivipara* Linnaeus, 1758, are hereby set aside, and

(b) the specimen selected by H. Watson, 1955, is designated as lectotype of that nominal species;

(c) the family-group name PALUDINIDAE J. E. Gray, 1840, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Viviparus* Montfort, 1810 (gender: masculine), type-species, by original designation, *Helix vivipara* Linnaeus, 1758 (as interpreted under the plenary powers in (1)(b) above) is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1377.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *vivipara* Linnaeus, 1758, as published in the binomen *Helix vivipara*, and as determined under the plenary powers in (1)(b) above (type-species of *Viviparus* Montfort, 1810) (Name No. 1682);

(b) *contectum* Millet, 1813, as published in the binomen *Cyclostoma contectum*, and as interpreted by the lectotype selected by Forcart, 1957 (Name No. 1683).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Paludina* Lamarck, 1812 (a cheironym) (Name No. 1295);

(b) *Paludina* Férussac, 1812 (a junior objective synonym of *Viviparus* Montfort, 1810) (Name No. 1296);

(c) *Vivipara* J. Sowerby, 1813 (an erroneous subsequent spelling of *Viviparus* Montfort, 1810 (Name No. 1297);

(d) *Viviparella* Rafinesque, 1815 (an unjustified emendation of *Viviparus* Montfort, 1810) (Name No. 1298);

(e) *Viviparous* Collinge, 1891 (an erroneous subsequent spelling of *Viviparus* Montfort, 1810 (Name No. 1299);

(f) *Vivipara* Kobelt, 1906 (an erroneous subsequent spelling of *Viviparus* Montfort, 1810) (Name No. 1300).

(5) The specific name *fluviorum* Montfort, 1810, as published in the binomen *Viviparus fluviorum* (a junior objective synonym of *Helix vivipara* Linnaeus, 1758), is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology (Name No. 602).

Bull. zool. Nomencl., vol. 17, pts. 3–5. December 1959.

(6) The family-group name VIVIPARIDAE J. E. Gray, 1847 (type-genus *Viviparus* Montfort, 1810) is hereby placed on the Official List of Family-Group Names in Zoology (Name No. 275).

(7) The family-group name PALUDINIDAE J. E. Gray, 1840 (type-genus *Paludina* Férussac, 1812) (suppressed under the plenary powers in (1)(c) above) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology (Name No. 311).

HISTORY OF THE CASE (Z.N.(S.) 857)

In July 1950, Mr. A. E. Ellis (Epsom, Surrey, England) submitted a list of names of non-marine Molluscan genera for addition to the Official List. Thirty-four of these names were dealt with in Opinion 335 (*Ops. Decls. I.C.Z.N.* **10** : 45–76), but the present case presented special problems and was therefore postponed for separate treatment. Eventually, the following papers were sent to the printer on 2 January 1957 and published on 29 March 1957 :

Ellis, A. E., " Proposed addition to the Official List of Generic Names in Zoology of the generic name *Viviparus* Montfort, 1810, and proposed validation under the Plenary Powers of the family-group name VIVIPARIDAE Gray (J.E.), 1847 ", *Bull. zool. Nomencl.* **13** : 38–43 ;

Forcart, L., " Proposed determination of interpretation of, and addition of to the Official List of Specific Names in Zoology of, (a) *vivipara* Linnaeus, 1758, as published in the combination *Helix vivipara* and (b) *contectum* Millet, 1813, as published in the combination *Cyclostoma contectum*, and proposed validation under the Plenary Powers of the family-group name VIVIPARIDAE Gray (J.E.), 1847, *ibid.* : 44–49 ;

Boettger, C. R., " Proposed addition to the Official List of Specific Names in Zoology of the specific name *vivipara* Linnaeus, 1758, as published in the combination *Helix vivipara*, as interpreted by Müller (O.F.) in 1774 ", *ibid.* : 50–52 ;

Watson, H., " Which of the two common British species of *Viviparus* Montfort, 1810, should be named *Viviparus viviparus* (Linnaeus) (=*Helix vivipara* Linnaeus, 1758) ? ", *ibid.* : 53–66 ;

Baily, J. L., jr., " Proposed use of the Plenary Powers to validate the generic name *Paludina* Férussac, 1812, by suppressing the name *Viviparus* Montfort, 1810 ", *ibid.* : 67–72.

Public Notice of the possible use of the plenary powers was given in the same part of the *Bulletin*, as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two serials dealing with Mollusca.

Mr. Ellis's application was supported by Dr. Horace B. Baker (University of Pennsylvania, U.S.A.) (*Bull. zool. Nomencl.* **13** : 205) and by Mrs. W. S. S. van der Feen (Zoologisch Museum, Amsterdam, Netherlands) (*ibid.* : 250). Comments received too late for publication are given below.

The principal point of controversy in this case concerned the interpretation of the specific name *Helix vivipara* Linnaeus, 1758. Distinct from this was the question of whether the genus to which that species is referred is to be called *Viviparus* Montfort, 1810, or *Paludina* Férussac, 1812 ; and the question of whether the family name involved should be VIVIPARIDAE Gray, 1847, or

PALUDINIDAE Gray, 1840, depended on the answer to the latter question. There was eventually a total of sixteen documents in the case, of which the first seven were the five papers and two comments published in *Bull. zool. Nomencl.* **13** (see above). The other nine documents were circulated to the Commission with the following report on 12 March 1959.

I. Introduction

" This report is designed to show in condensed form the matters of principle involved in this case and the means adopted in devising, for the purposes of obtaining a Vote from the Commission, a series of alternative propositions to represent the conflicting and overlapping requests put forward. The Voting Paper is divided into three parts, in each of which a vote is requested for one or the other of two alternatives. This has been found necessary because the problems at the specific name level are independent of those at the generic and family name levels.

" 2. There are sixteen separate documents before the Commission in the present case. Seven of these have been published in *Bull. zool. Nomencl.* **13** and the other nine are circulated herewith. For the sake of convenience, they have been given Document Numbers by which they are referred to in this report. The references are :

Document 1. Ellis, A. E., *Bull. zool. Nomencl.* **13** : 38–43
2. Forcart, L., *ibid.* : 44–49
3. Boettger, C., *ibid.* : 50–52
4. Watson, H., *ibid.* : 53–66
5. Baily, J. L., *ibid.* : 67–72
6. Baker, H. B., *ibid.* : 205
7. van der Feen, W. S. S., *ibid.* : 250
8. Statement by Commissioner Mayr, 16.7.57
9. Letter from Dr. H. A. Rehder, 23.9.57
10. Letter from Dr. Bengt Hubendick, 25.10.57
11. Letter from Dr. I. C. J. Galbraith, 11.2.58
12. Statement by Dr. Boettger, 11.11.58
13. Letter from Commissioner Mertens, Dr. A. Zilch and Dr. O. Kraus, 24.11.58
14. Statement from Mr. Ellis, 28.11.58
15. Letter from Mr. M. P. Kerney, 3.12.58
16. Letter from Commissioner Mayr, 22.1.59.

II. Specific Name Problems

" 3. The specific name *vivipara* Linnaeus, 1758 (*Helix*) has been used for two distinct, though nearly related species of freshwater snails, referred to below as the " narrow " and the " ventricose " species respectively. The Commission has conflicting proposals before it, (a) as to the species to which the name *vivipara* is in future to be applied, and (b) as to the valid name of the other species.

" 4. Ellis (1), supported by Forcart (2), Watson (4), Baily (5), van der Feen (7), Rehder (9), Hubendick (10), Galbraith (11), and Kerney (15), all of them specialists in the field concerned, ask that the specific name *vivipara* Linnaeus, 1758 be applied to the " narrow " species, as defined by the lectotype selected by Watson, 1955 (*Proc. Malac. Soc. Lond.* **31** : 163–174). Commissioner Mayr, who is not a specialist in Mollusca, has impartially examined all the evidence and concludes (16) that this view is supported by the weight of the evidence. Forcart (2), Watson (4), Rehder (9), Galbraith (11) and Kerney (15) further hold that *contectum* Millet, 1813 (*Cyclostoma*) should be accepted as the name for the " ventricose " species. Boettger (3), on the other hand, supported by Commissioner Mertens, Zilch and Kraus (13) ask that *vivipara* Linnaeus be applied to the " ventricose " species and that *fasciata* O. F. Müller, 1774 (*Nerita*) be adopted as the name for the " narrow " species. The arguments adduced on each side are, however, technically defective, as is explained in the following paragraphs.

" 5. Watson (4) claims that the Linnean species is homogeneous, whereas Boettger alleges that it is a composite. Thus, for Watson, there can be no question of restriction of the original concept by later revisers, while Boettger's case rests on the identification of the author who acted as " first reviser ". *Helix vivipara* Linnaeus, 1758 is based on nine elements (listed below), so that any author is at liberty to apportion these elements among different species according to his subjective opinion. As with any nominal species that is not based on a single, originally designated holotype, a statement that the original concept is a composite cannot be disproved. The way in which these two authorities differ in interpreting each of the elements is shown in the following table.

Element	*Watson's view*	*Boettger's view*
Description in *Syst. Nat.* (ed. 10) : 772, 1758	The words " imperforata, obtusa " refer to two characters diagnostic of the " narrow " species	Agrees better with the " narrow " but does not exclude the " ventricose " species.
Habitat cited by Linnaeus (*ibid.*)	Habitat is not a sound basis for differentiating the two species	The " ventricose " species
Citation of *Fauna svecica*	The locality cited is the river Sala, where only the " narrow " species occurs	Includes both species
Lister, *Hist. anim. Angl.* pl. 2, fig. 18	Indeterminable	Indeterminable
Lister, *Exerc.*, p. 17, tab. 2	The page is that where Lister describes only the " narrow " species (the other is dealt with on pp. 263–265). The plate has figures of a species of *Lymnaea* besides those here discussed	Both species

Element	*Watson's view*	*Boettger's view*
Lister, *Conch.* 2 : pl. 126, fig. 26	The " narrow " species	The " narrow " species
Gualtieri, *Test.* pl. 5, fig. A (cited by Linnaeus as " fig. 1 ")	An immature specimen of the " narrow " species	The " ventricose " species
Swammerdam, *Bibl.*: pl. 9, fig. 13 (cited as " fig. 3 ")	A poor figure of the " narrow " species	Probably the " narrow " species
Two original specimens in the Linnean collection	The " narrow " species	The " narrow " species

" 6. It will be seen that Watson's claim that the species is not a composite is weakened by his admission that one of the synonyms cited by Linneaus is indeterminable, and that Boettger admits that the greater number of the elements of which the original nominal species is composed belong to the " narrow " species. It therefore seems futile to prolong the argument as to the composite or non-composite nature of the species, since the evidence is too indefinite for a solution to be reached on that basis. Boettger's statement that the species is composite, whether true or not, cannot be disproved absolutely.

" 7. One further flaw in each argument should be mentioned. Watson (4) claims that only the specimens in the Linnean collection are to be regarded as syntypes, while the cited synonyms can be ignored. This is, of course, contrary to the Rules. On the other hand, Boettger claims that the two species can be distinguished by their habitat, but Ellis (14) quotes from the literature to show that this view is misleading.

" 8. The next step is clearly to consider in what way the original concept of *Helix vivipara* Linnaeus has been restricted or given objective definition, and to decide on the evidence whether such a restriction or definition is in accord with current usage, or whether the plenary powers should be invoked in the interests of stability of nomenclature. Boettger (4, 12) and his supporters claim that the Linnean species was first validly restricted by O. F. Müller, 1774 (*Verm. terrestr. fluv.* 2 : 182–184). I have compared this reference with the original Linnean reference, and find no evidence that Müller restricted the Linnean species in any way. He quoted (under *Nerita vivipara*) the Linnean description verbatim, with five of the six synonyms cited by Linnaeus, and with additional synonyms. These synonyms are such as to enlarge rather than reduce the extent of the nominal species. Boettger's claim that Müller transferred that part of Linnaeus's composite *Helix vivipara* which represented the " narrow " species to his *Nerita fasciata* finds equally little support, for there is no link, direct or implied, between the two concepts, while Müller's description clearly applies to some other species. Those authors who have assumed that Müller effectively restricted the species have therefore been acting on a false premise. Many important authors adopted this assumption before 1850, although even in that period there were some who did not ; and Watson has clearly shown that since 1850 that idea has been followed only in Germany and some Central European countries. For the last hundred years, the specific name *vivipara* Linnaeus, 1758 has been used for the " narrow " species in a majority of countries where the species occurs (as well as in the U.S.A.) and in a large majority of published works.

" 9. The first valid restriction of *Helix vivipara* known to me is Watson's selection of a lectotype (*op cit.* 1955). Professor Mayr (16), claims that this is invalid because of Watson's error in refusing to treat the synonyms cited by Linnaeus as of equal syntype-rank with his specimens, and because he did not take all the syntypes into consideration in selecting his lectotype. I respectfully disagree with the learned Commissioner on this point, for on a literal reading of the Rules, any author is at liberty to choose any one of the original syntypes as lectotype. There are doubtless very many cases where lectotypes of unquestioned validity have been chosen without every syntype having been examined. Professor Mayr concludes that the specimen chosen by Watson should indeed be the lectotype, but he holds that this can only be brought about through the use of the plenary powers. I am unwilling to impose my view on the Commission in any way and feel that each Member should decide for himself whether or not the plenary powers must be used to secure this end. In order to simplify the procedure, it is, I think, legitimate to conclude that a Commissioner who agrees with the view expressed by Ellis, Watson and their supporters (and endorsed by Commissioner Mayr) will consent to the use of the plenary powers in this connection ; while a Commissioner of the opposite view will not hesitate to use the plenary powers to secure the end sought by Boettger and his supporters.

" 10. It should be clear that the stabilisation of *Helix vivipara* as the name for the " ventricose " species can only be secured by the use of the plenary powers : for the case presented by Boettger for regarding O. F. Müller as the valid " first reviser " has been shown to have no foundation in fact.

" 11. A vote is therefore called for in the first part of Voting Paper V.P.(59)1 (a) either for the use of the plenary powers to set aside all previous type-selections for *Helix vivipara* Linnaeus, 1758, so as to designate in effect the specimen selected by Watson in 1955 as the lectotype of that species ; or (b) to use the plenary powers in the same manner to rule that that species is to be interpreted in accordance with the alleged restriction by O. F. Müller in 1774. A vote for the use of the plenary powers in alternative (a) will entail the adoption of the proposals of paragraphs (2) and (4) of *Bull. zool. Nomencl.* **13** : 43 with those of paragraphs (1) and (2) of : 48 and of paragraphs (2), (4) and (6) of : 69–70. A vote for alternative (b) will entail the adoption of Dr. Boettger's proposals on : 52.

III. GENERIC NAME PROBLEMS

" 12. The problem at this level is to decide what name is to be used for the genus to which both the " narrow " and the " ventricose " species of freshwater snails just discussed are referred, and of which *Helix vivipara* Linnaeus, 1758, is the type-species. Three generic names, all of them objective synonyms of one another, are mainly involved, namely, *Viviparus* Montfort, 1810, *Vivipara* J. Sowerby, 1813, and *Paludina* Férussac, 1812.

" 13. Ellis (1), supported again by Forcart (2) and Watson (4), as well as by Baker (6) and Rehder (10), proposes that *Viviparus* Montfort, 1810, be accepted as the name of this genus. All the other authors listed in paragraph 2 above (with the exception of Baily) have used that generic name in their communications with this Office, so that it is legitimate to assume that they too would prefer to see *Viviparus* stabilised rather than either of the other generic names. Baily (5) proposes that the generic name *Paludina* Férussac, 1812 be adopted for the genus in question. He quotes references to show that *Paludina* has been used more often than either *Viviparus* or *Vivipara*, and that the last-mentioned has been used more often than the second. (*Vivipara* J. Sowerby, 1813, is in fact an erroneous subsequent spelling of *Viviparus* Montfort, 1810, and has only been preferred by some authors because it agrees in its feminine gender with the original gender of the specific name, and because they thought it objectionable to use a masculine name for a " viviparous " species.)

" 14. Ellis (1) has shown that, while *Paludina* was the generic name most widely used in the nineteenth century, it has been quite superseded in the twentieth century by *Viviparus*. His claim that *current* (as opposed to *past*) usage would be best protected from disturbance by adopting the name *Viviparus* is not disputed. Moreover, no support is forthcoming for Baily's proposal, and Rehder (9) has shown that Dr. Baily has not cited a number of references opposed to his purpose.

" 15. The alternatives at the generic name level (see Part B of the Voting Paper) are thus, either (1) to place *Viviparus* Montfort, 1810, on the Official List and to reject and place on the Official Index the names listed by Ellis (1 : 40, 43) ; this alternative does not involve the use of the plenary powers ; or (2) to use the plenary powers to suppress the generic name *Viviparus* Montfort, 1810, and to validate *Paludina* Férussac, 1812.

IV. FAMILY-GROUP NAME PROBLEM

" 16. Two family-group names fall to be considered in this case, PALUDINIDAE Gray, 1840, and VIVIPARIDAE Gray, 1847. Under the revision of the Rules relating to family-group names adopted at Copenhagen in 1953 (and confirmed in London in 1958), it would be possible to retain the older of these two names (PALUDINIDAE) at the same time as the generic name *Paludina* was suppressed. This would, however, be contrary to established usage in the Mollusca, where family-group names are always made to follow the valid name of the type-genus. It is, therefore, strongly urged that the Commission should place on the Official List whichever of the two family-names mentioned accords with the generic name which is established at the same time. Thus, if *Viviparus* Montfort, 1810 is placed on the Official List of Generic Names, and if *Paludina* Férussac, 1812 is placed on the Official Index, then the plenary powers should be used to suppress PALUDINIDAE for the purposes of the Law of Priority but not for those of the Law of Homonymy and VIVIPARIDAE should be placed on the Official List of Family-Group Names. If on the other hand, the plenary powers are used to suppress the generic name *Viviparus* Montfort, 1810, then VIVIPARIDAE should be rejected and placed on the Official Index and PALUDINIDAE should be placed on the Official List. It will be noticed that the relative priority of the family-group names is the reverse of that of the corresponding generic names, so that the alternative which can be adopted at the generic level without using the plenary powers entails the use of those powers at the family level, and vice versa. It will also be observed that, if *Viviparus* is placed on the Official List, then *Paludina* is automatically rejected as a junior objective synonym. If the plenary powers were needed to suppress *Paludina*, then PALUDINIDAE would be automatically invalid by that action. Because that is not the case, the rejection of PALUDINIDAE can only be brought about by the use of the plenary powers.

V. NOTE ON ARRANGEMENT OF VOTING PAPER

" 17. In presenting a series of alternatives for the votes of Commissioners in the three parts of the accompanying Voting Paper, the alternative which has attracted the most support and which is favoured by the weight of the evidence is placed as Alternative 'A' in each case, and the alternative with less support and less favoured by the evidence is placed as Alternative ' B '. It will thus be possible to vote in a consistent manner in each of the three issues presented by striking out that numbered 'A' in each part. At the same time, it will also be possible to vote for Alternative ' B ' in Part 1 and for Alternative 'A' in Parts 2 and 3, or for Alternative 'A' in Part 1 and Alternative "B ' in Parts 2 and 3 without inconsistency."

APPENDIX

Documents 8 *to* 17

Document 8. *Statement by Commissioner Mayr*, 16.7.57.—In the various applications concerning the interpretation of *Helix vivipara* Linnaeus a number of statements are made concerning the Linnean method and certain principles of nomenclature, which call for comment.

(1) It is well known that many, if not the majority of the Linnean species, were composite. In order to establish these names unequivocally a subsequent author (" first reviser ") has to restrict the name to one of the components. Linnaeus himself, in later editions of his works, has often been the first reviser of his own composite earlier names.

(2) Linnaeus did not have the concept of types in the modern nomenclatorial sense of the word. He considered the cited references, illustrations, descriptions and specimens as equivalent bases of his concept of the respective species. "Authoritative ", " reference " or " original " specimens in the Linnean collection were not necessarily given special treatment by Linnaeus. He merely considered them to " typify " his concept of the species. How little Linnaeus appreciated the nomenclatorial significance of such specimens is indicated by the fact that he repeatedly revised his herbarium and replaced specimens (which in part had served as basis of descriptions) by " better " ones.

(3) In the case of Linnaeus and other early authors who based their names in part or totally on previously published description or figures, these are as legitimate syntypes as specimens in their collections. A lectotype selection may be made from any of these bases of the name, as was indeed done in several recent decisions of the Commission. The statement by Watson (1957, *Bull.*

zool. Nomencl. **13** : 56) " the only undoubted syntypes of Linnaeus's *Helix vivipara* are the two numbered shells in his collection " is therefore in error. The two specimens were not the exclusive basis of *Helix vivipara* Linnaeus.

(4) A first reviser can act only if the original basis of a name is composite. Boettger (*op. cit.* 54–55) presents seemingly convincing evidence that descriptions and all references refer to the " narrow " species. The burden of proof now rests with Boettger.

(5) The unequivocal establishment of whether or not *H. vivipara* is a composite species is the crucial point in the entire question. If this is a composite species, it must be determined who is the first legitimate reviser, and if his choice would produce confusion rather than stability and universality, the Commission may have to vote to suspend the rules. In the applications now before us, some of these important matters do not seem to have been brought out with sufficient clarity.

I would not want to have this case brought to a vote until this is clarified.

Document 9. *Letter from Dr. H. A. Rehder, Curator, Division of Mollusks, U.S. National Museum, Washington, D.C.*, 23.9.57.—I am in complete agreement with the views expressed by both A. E. Ellis and Lothar Forcart regarding the generic names and family names involved in the question of the usage of *Viviparus* versus *Paludina*, and I am opposed to the application of Joshua L. Baily, Jr. As both Ellis and Forcart have pointed out, the name *Viviparus* (or the invalid emendation *Vivipara*) have been in almost general use by everyone for the last 70 years or so. Baily, in his list of workers using the various generic names, has omitted many works using *Viviparus* or *Vivipara*. I have checked through most of the important molluscan faunal works and monographic studies published since the turn of the century, and have found that since 1900, 19 workers have used *Viviparus*, 12 have used *Vivipara*, and only 5 have used *Paludina*. I have included in this count those references cited by Baily (except his " 1904 Jeffreys (J.G.) " which is non-existent ; the date should be 1862), and I have omitted many of the publications listed by Watson because I have not seen them . . . Many important faunal works using *Vivipara* published in the late nineteenth century are also not listed by Baily.

I support the petition of Lothar Forcart, and hope that the Commission will rule on it favourably. Hugh Watson's discussion of the name *Helix vivipara* Linnaeus is perfectly clear and logical, and I agree with his conclusions and recommendations, as opposed to those brought forward by Dr. Boettger. I disagree, however, with Watson's statement in his "Addendum 2 " regarding the type of *Paludina*. Ellis is correct in his discussion of this matter in paragraph 4 of his petition, and the type-species of *Paludina* must be the same as that of *Viviparus*.

Document 10. *Letter from Dr. B. Hubendick, Naturhistoriska Ricksmuseet, Stockholm*, 25.10.57.—It is quite definitely clear that Linné gave the name *vivipara* to the narrower species. This is the only one which occurs in the locality or area given by Linné as the type-locality. The specimens of the more ventricose species which are mixed with the real type in the Linnean collection must have been mixed in by accident and must originate from some other geographical area. All this is definitely settled by Watson in *Proc. malac. Soc. Lond.* **31** : 163 ff., and Ellis's application to the Commission is in accordance with the real facts. The German nomenclatorial confusion of the *Viviparus* species is most unfortunate. It is important to get rid of this confusion and not to conserve it, as Boettger suggests.

Document 11. *Letter from Dr. I. C. J. Galbraith, British Museum* (*Natural History*), *London*, 11.2.58.—I feel it most desirable that *vivipara* Linnaeus should apply to the narrower species and *contectus* Millet to the ventricose one, under the generic name *Viviparus* Montfort. As for the family name, I hope that the view will prevail that the Copenhagen Decision about family-group names based on junior generic synonyms does not involve changing currently accepted family names based on valid generic names. Boettger's contribution is curiously at fault in not citing Watson (1955) whose conclusions seem entirely just ; and I think Baily's proposal about *Paludina* is mistaken.

Document 12. *Statement by Dr. Boettger*, 11.11.58.—As the original description of *Helix vivipara* Linnaeus must be accepted the publication in the *Syst. Nat.* (ed. 10), 1758. Linnaeus cited references, illustrations and descriptions ; also there are specimens as equivalent basis of his concept in the Linnean collection. Of his earlier books the Fauna Svecica (3) is cited by Linnaeus [Dr. Boettger quotes from the first and the 1751 editions to show that the species lived both in running and in stagnant water] . . . The note of Linnaeus that the snail is common in the river Sala (about 100 km. W. of Uppsala) is not at all the nomination of a terra typica as Westerlund believed (1871, *Nova Acta Reg. Soc. Sci. Upsal.* (3) 8). Westerlund was of the opinion that Linnaeus was thinking only of the running water species, because in the river Sala only this species occurs, while the stagnant water species has its northern limit in Sweden two degrees further south. Linnaeus states, however, that his species lives also in swamps, Westerlund's restriction of *Helix vivipara* to the species living in the river Sala had been preceded by that of other authors for many years.

[Dr. Boettger then discusses the Linnean synonyms and their identification with the species of running water and stagnant water respectively.]

The description of *Helix vivipara*, as most of the descriptions given by Linnaeus, is meagre. I agree with Hugh Watson that it conforms more with the river species, but it does not exclude the swamp species, considering the fact that in the time of Linnaeus the differentiations were not so exact as in our times. Obviously Hugh Watson is right when he declares that in the Linnean collection there are only specimens of the river species. But these specimens have not more nomenclatorial value than the references given by Linnaeus in describing his species. If we now had to revise this species, we might have taken the specimens as types ; but this is not possible, as earlier revisions have priority. [Dr. Boettger reiterates his claim that O. F. Müller, 1774, restricted the Linnean species to the ventricose form, naming the narrow one *Nerita fasciata*, and states that this was followed by Gmelin, 1788, Draparnaud, 1801, O. Pfieiffer, 1821, Lamarck, 1822, Rossmassler, 1835, Gray, 1840 and Küster, 1850]. In 1850, Forbes & Hanley created the slender form as the type of *Helix vivipara* Linnaeus after having pointed out that only the slender form was represented in the Linnean collection. That these specimens are not the only basis for *Helix vivipara* has been recognised by Ernst Mayr (Document 8, paragraph 3).

Document 13. *Letter from Commissioner Mertens, Dr. A. Zilch and Dr. O. Kraus, Senckenberg Museum, Frankfurt a.M., Germany.*—Undoubtedly it is a fact that *Helix vivipara* Linnaeus, 1758 is a composite species. Repeatedly and over many years we have studied this question, and we came to the same result as Dr. Boettger in his paper of 1931 (*Arch. Moll.* **63** : 253–254). Dr. Forcart also wrote to Dr. Zilch (23.7.52) " I also have re-examined the figures and I came to the same conclusion as Boettger ". Therefore the statement of Watson is unintelligible to us . . . Already Kobelt (1908, Viviparus Monographie in Martini-Chemnitz, *Syst. Conch.-Cab.* **1** (21a) : 303) stated " The name *Helix vivipara* Linné unquestionably comprised both the northern species ; O. F. Müller divided them, and he restricted the name *Nerita vivipara* to the species before us . . . In any case it is not useful and leads to severe confusion when, based on such insecure circumstances, the name *vivipara* Linné is transferred from that species which has been so named for more than 100 years, to another, closely allied species ".

[The writers list the authors cited by Boettger (see Document 12) who followed Müller's alleged restriction.]

Therefore we are of the opinion that in the interests of stability and continuity of nomenclature no change in such a long-established and historical usage must be made. *Helix vivipara* Linnaeus, 1758, *is* a composite species. We find it only necessary for the Commission to confirm the restriction by O. F. Müller (1774) and to decide that it is to be regarded as a valid first reviser action (or not). All other questions seem to us as of secondary value.

Document 14. *Mr. Ellis's reply to Dr. Boettger's statement* (*see Document* 12) 28.11.58.—Any arguments based on habitats are of no significance either way, and it is misleading to refer to one species as inhabiting flowing water and the other as inhabiting still water, as the following quotations show :

Boycott, A. E., 1936, *J. Anim. Ecol.* : 139. " Both occur in England as far north as Yorks., in slow fair-sized rivers, canals and large draining ditches. Neither occurs naturally in stagnant water or closed ponds, though they will sometimes live, apparently permanently, in ponds into which they have been introduced . . . Roughly speaking their habits seem to be identical and the two are often found together.

Watson, H., 1955, *Proc. malac. Soc.* **31** : 164. " Both may occur in the same types of habitat, and it is a mistake to suppose that we can identify the species of an old author by the type of habitat in which he says that he has found it. In some districts the narrower species seems to prefer the moving water of rivers, and the more ventricose one the still water of ponds and marshes, but it is misleading to imply that this is always the case and to term the one species fluviatile and the other lacustrine."

Draparnaud, J. P. R., 1805, *Hist. nat. Moll. terr. fluv. France* : 36. *Cyclostoma viviparum* " dans les eaux stagnantes, les fosses, les rivières, etc.". *C. achatinum* " habite ordinairement avec la précédente."

Watson (*op. cit.* : 163 and Document 4 : 53) shows that Linnaeus only cited figures or descriptions of the narrower species, not of the more ventricose species. That *Helix vivipara* was not a composite species has been conclusively shown by Watson in these papers. Boettger's tendentious statement that " it is a well-known and undeniable fact that *Helix vivipara* Linnaeus is a composite species " is not in fact true, and he is wrong in saying that " only a few subsequent authors have adopted this view ", i.e. that of Forbes & Hanley, that the narrow species represented by the shells in the Linnean collection is the true *Helix vivipara* Linnaeus.

Boettger's contention that Linnaeus's description of *Helix vivipara* could equally apply to both species is manifestly incorrect, as " imperforata " and " obtusa " are both diagnostic characters whereby the narrower species is distinguished from the more ventricose species. The unsoundness of his argument is shown by this mis-statement.

Document 15. *Letter from Mr. M. P. Kerney* (*Imperial College of Science, London*), 3.12.58.—I find Watson's arguments for applying the name *V. viviparus* to the narrower European species and *V. contectus* to the more ventricose thoroughly conclusive, and that any attempt to reverse this usage would only cause confusion. To my knowledge, every British writer on Quaternary fossil Mollusca for the last 60 years has also followed this usage, and this again is true of most continental palaeontological literature outside Germany.

Document 16. *Statement by Commissioner Mayr*, 22.1.59. (1) *Is the Linnean species composite* ? There is no doubt that the majority of the indications, such as the description, the two specimens in the Linnean Collection and part of the literature references refer to the narrow, river species. Others, on the other hand, clearly refer to the pond species. First, the habitat descriptions both in the Tenth Edition and in the *Fauna Svecica* refer either to both species or more exclusively to the globose species of ponds and swamps (e.g. " In Europae stagnis ", and " in paludibus, lacubus . . . "). Secondly, the species figured by Gualtieri, first figure on Table 5, is in my opinion, and that of Drs. W. J. Clench and R. Turner of this museum, clearly an immature specimen of the globose species. As a third element of the globose species among the Linnean indications of *H. vivipara* must be considered the reference to Lister, Exerc. Table 2. In all other cases where Linnaeus wanted to limit himself to specific figures on tables, he stated this succintly in his bibliographic reference, as in his two other Lister references, as well as in his citations of Gualtieri and Swammerdam. It is quite immaterial for this argument that Lister himself clearly distinguished several species among those which he figured on this Table 2. Linnaeus in his citation made no such distinction.

On the basis of this evidence, it seems to me incontrovertible that the nominal species *Helix vivipara* Linnaeus, 1758 has a composite basis.

Better proof than anything else for the conclusion that *Helix vivipara* was for Linnaeus a composite species is the fact that he did not establish a separate species for the clearly defined and described ventricose species of Lister (nor for that of Gualtieri and in the 12th ed. for that of Seba) but included the references to published descriptions and figures of the ventricose species, that were known to him, in the nominal species *Helix vivipara* together with the references to the narrow species.

(2) *Who is the first reviser*?—The next question to be answered is to determine who qualifies as the first reviser. I checked in the 12th edition of the *Syst. Nat.* but Linnaeus—instead of eliminating the few references to the globose species—has added a new one, namely, to Seba (Volume 3, Plate 38, figure 12). Although this is of no relevance to the question of the first reviser, it confirms the conclusion that Linnaeus considered the narrow and globose forms as conspecific. The claim has been made that O. F. Müller (1774) has restricted the components of the composite species of Linnaeus. This view is not supported by the facts. There is no evidence whatsoever that Müller was aware of the composite nature of the Linnean species, he simply used the name *vivipara* and re-defined it. As a matter of fact it remained a composite, as correctly poointed out by Watson (*Bulletin*, **13** : 55). A search through the subsequent literature has failed to reveal a single author who would qualify as a first reviser. Watson's restriction (1955 : 171) does not qualify because he denies the composite nature of the Linnean species and secondly because he did not consider all of the Linnean syntypes. He states that " the only undoubted syntypes of Linnaeus's *Helix vivipara* are the two numbered shells in his collection in London ". This is not correct. Linnaeus did not have our modern concept of the type as a name-bearer and indeed all specimens on which his descriptions are based and those figured in his cited illustrations are equally qualified as syntypes together with specimens in his collection. It might be important in this connection to emphasize, as has been stated repeatedly by the foremost scholars of the Linnean method, that Linnaeus considered the synonymy as important, if not more so, than his descriptions and specimens. Indeed Linnaeus was so little aware of the nomenclatorial significance of the specimens in his collection that he repeatedly replaced specimens in his herbarium which had formed the basis of his early descriptions when he found " more typical specimens " which permitted a " better " description. The concept of the nomenclatural type, the " name-bearer ", has only gradually come to the fore in the post-Linnean period. It is known that as late as 1850, types were replaced in several museums by new specimens whenever the original types were lost, eaten by moths, or had become mildewed.

In short, I fail to find in the entire existing literature a clear-cut unambiguous first reviser action. Consequently I herewith propose that the Commission clearly designate one of the components of the composite Linnean species as the lectotype of *Helix vivipara*, thereby giving the name an unambiguous basis. I suggest that the Commission set aside " all previous first-reviser actions and lectotype selections " in order to make sure that there is no further disturbance of nomenclature.

(3) *To which of the two components should the name vivipara be restricted ?*— It is not possible to find a solution that will please everybody. The name *vivipara* is applied to the narrow river species in the north area and western parts of Europe and to the ventricose pond species in central Europe. Whatever course is adopted it will necessitate a switching of names in some part of Europe. It is therefore important to weigh all the arguments pro and con carefully to arrive at a decision that will be best supported by the facts of the case. It seems to me that Forcart and Watson have presented a far stronger case for restricting the name to the narrow, river species than has Boettger (*Bull. zool. Nomencl.* **13** : 50–52) in favour of the ventricose species. To begin with, the majority of the Linnean indications in the original description refer to the narrow species. Secondly, the name *vivipara* is applied to the narrow species not only in Scandinavia, Linnaeus's own country, but in much of the remainder of the world. Except for central Europe, the name *vivipara* is almost universally applied to the narrow species. A third reason is that Montfort when establishing the genus *Viviparus* in 1810 " clearly designated Linnaeus's *Helix vivipara* as the type-species of his genus, but equally clearly showed by his description and figures that he meant the narrower species ". (Watson, L. C., 58). Without ignoring the fact that the ventricose species is recorded under the name *H. vivipara* in many of the standard monographs, it seems to me that the total weight of the evidence favours the narrow species.

I therefore propose that the Commission restrict the name *Helix vivipara* Linneaus to the narrower species and designate as lectotype from all the syntypes on which Linnaeus's name was based the specimen in his collection figured on Plate 1 of the *Bulletin of Zoological Nomenclature*, Volume **13** (next to page 56).

In its consequences, my proposal coincides closely with the earlier one made by Mr. Watson. In view of the fact, however, that the Linnean species is clearly a composite I consider it impossible to arrive at a binding solution without invoking the plenary powers of the Commission.

DECISION OF THE COMMISSION

Voting Paper (59)1 was circulated under the Three-Month Rule to the Members of the Commission with the above report and Appendix on 12 March 1959. This Voting Paper was divided into three parts : Part 1 called for a vote for either Alternative 'A' (use of the plenary powers to set aside all previous selections of a lectotype for *Helix vivipara* Linnaeus, 1758, and to designate the specimen figured in *Bull. zool. Nomencl.* **13** : pl. 1) or for Alternative ' B ' (use of the plenary powers to secure the application of the specific name *vivipara* to the more ventricose of the two species included by Linnaeus under that name) ; Part 2 called for a vote either for Alternative 'A' (to place *Viviparus* Montfort, 1810, on the Official List) or for Alternative ' B ' (to use the plenary powers to suppress that name for priority but not for homonymy so as to place *Paludina* Férussac, 1812, on the Official List) ; Part 3 called for a vote either for Alternative 'A' (use of the plenary powers to suppress the family-group name PALUDINIDAE Gray, 1840 for priority but not homonymy so as to validate VIVIPARIDAE Gray, 1847) or for Alternative ' B ' (to place PALUDINIDAE on the Official List, and VIVIPARIDAE on the Official Index, of Family-Group Names in Zoology.

At the close of the Voting Period on 12 June 1959, the state of the voting was as follows :

Part 1. For Alternative 'A'—seventeen (17) votes, received in the following order : Lemche, Holthuis, Hemming, Vokes, Boschma, Bonnet, do Amaral, Dymond, Mayr, Riley, Jaczewski, Obruchev, Key, Stoll, Brinck, Bradley, Poll.

For Alternative ' B '—four (4) votes : Hering, Mertens, Bodenheimer, Kühnelt.

Part 2. For Alternative 'A'—eighteen (18) votes : Lemche, Holthuis Hemming, Vokes, Boschma, do Amaral, Mertens, Dymond, Mayr, Bodenheimer, Riley, Jaczewski, Obruchev, Key, Stoll, Brinck, Bradley, Poll.

For Alternative ' B '—three (3) votes : Hering, Bonnet, Kühnelt.

Part 3. For Alternative 'A'—eighteen (18) votes (as in Part 2).

For Alternative ' B '—three (3) votes (as in Part 2).

A late affirmative vote for Alternative 'A' in each part was received from Commissioner Miller. Commissioners Hankó, Prantl, Tortonese, Cabrera and Uchida did not vote.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

contectum, *Cyclostoma*, Millet, 1813, *Moll. terr. fluv. obs. Dépt. Maine et Loire* : 5
fluviorum, *Viviparus*, Montfort, 1810, *Conch. syst.* **2** : 247
Paludina Férussac, 1812, *Ann. Mus. Hist. nat.* Paris **19** : 253
PALUDINIDAE, J. E. Gray, 1840, *Synopsis Cont. Brit. Mus.* (ed. 42) : 117 and *Man. Land & Freshwater Shells brit. Is.* (ed. 2) : 79, 89
vivipara, *Helix*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 772
Vivipara Kobelt, 1906, *Nachr. Bl. deutsch. malak. Ges.* **38** : Inhalt [2]
Vivipara J. Sowerby, 1813, *Min. Conch.* **1**(6) : 75
Viviparella Rafinesque, 1815, *Analyse Nature* : 144
VIVIPARIDAE J. E. Gray, 1847, *Proc. zool. Soc. London* **15**(178) : 155
Viviparous Collinge, 1891, *Conchologist* **1** : 31
Viviparus Montfort, 1810, *Conch. syst.* **2** : 246

CERTIFICATE

We certify that the votes cast on Voting Paper (59)1 were cast as set out above, that the proposals set out as Alternative 'A' in each of the three parts of the Voting Paper have been adopted under the plenary powers, and that the decisions so taken, being the decisions of the International Commission, are truly recorded in the present Opinion No. 573.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *July* 1959

OPINION 574

VALIDATION UNDER THE PLENARY POWERS OF THE SPECIFIC NAME *GEMMASCENS* ESPER, [1794], AS PUBLISHED IN THE BINOMEN *MADREPORA GEMMASCENS* (CLASS HYDROZOA, ORDER STYLASTERINA)

RULING.—(1) The following specific name is hereby suppressed under the plenary powers for the purposes of both the Law of Priority and the Law of Homonymy:

- (a) *gemmascens* Wilkens, 1787, as published in the binomen *Madrepora gemmascens*;
- (b) *gemmascens*, all uses of, in the binomen *Madrepora gemmascens*, subsequent to Wilkens, 1787, and prior to Esper, [1794].

(2) The specific name *gemmascens* Esper, [1794], as published in the binomen *Madrepora gemmascens*, and as interpreted by the holotype figured by H. Boschma, 1955, is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1684.

(3) The following specific names are placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

- (a) *gemmascens* Wilkens, 1787, as published in the binomen *Madrepora gemmascens* (suppressed under the plenary powers in (1)(a) above) (Name No. 603).
- (b) *gemmascens*, all uses of, in the binomen *Madrepora gemmascens*, subsequent to Wilkens, 1787, and prior to Esper, [1794]. (Name No. 604).

HISTORY OF THE CASE (Z.N.(S.) 950)

On 28 April 1955, Professor H. Boschma applied for the use of the plenary powers to validate the specific name of the stylasterine coral known as *Stylaster gemmascens* (Esper, [1794]), and sent with his application a copy of his paper " The type-specimen of *Stylaster gemmascens* (Esper, 1794) " (1955, *Proc. k. nederl. Akad. Wetensch.* (C) **58** : 22–31). Professor Boschma's application was overlooked for some time, but it was sent to the printer on 28 January 1958 and was published on 6 June 1958 in *Bull. zool. Nomencl.* **16** : 71–72.

Public Notice of the possible use of the plenary powers in this case was given in the same part of the *Bulletin* and was sent to the other prescribed periodicals (*Bull. zool. Nomencl.* **4** : 51–56).

No comments were received from any source.

DECISION OF THE COMMISSION

On 12 March 1959 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (59)2 either for or against the proposals set out in *Bull. zool. Nomencl.* **16** : 72. At the close of the Voting Period on 12 June 1959 the state of the voting was as follows:

Affirmative Votes—twenty-three (23), received in the following order: Lemche, Holthuis, Hemming, Vokes, Prantl, Boschma, Hering, Bonnet, do Amaral, Jaczewski, Mertens, Dymond, Mayr, Bodenheimer, Riley, Obruchev, Key, Stoll, Brinck, Bradley, Kühnelt, Cabrera, Tortonese.

Negative Votes—one (1): Poll.

Votes not returned—three (3): Hankó, Miller, Uchida (late affirmative votes were received from Commissioners Miller and Uchida).

In returning his negative vote, Dr. Poll said: " Il ne me semble pas que l'exposé des faits du *Bulletin* **16** : 71–72 démontre que *Madrepora gemmascens* Wilkens, 1787 est une espèce qui prète à confusion. D'autre part, il est clair que *M. gemmascens* Esper, [1794], est homonyme. Il ne me semble pas non plus que l'on puisse invoquer une confusion grave résultant d'un changement de nom de la Stylastérine décrite par Esper."

ORIGINAL REFERENCES

The following are the original references for the specific names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

gemmascens, *Madrepora*, Esper, [1794], *Die Pflanzenthiere*, Fortsetzung, **1**(2) : 60

gemmascens, *Madrepora*, Wilkens, 1787, *in* Pallas, *Charakteristik der Thierpflanzen* **2** : 144.

CERTIFICATE

We certify that the votes cast on Voting Paper (59)2 were cast as set out above, that the proposals set out in the Voting Paper have been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 574.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *July* 1959

OPINION 575

ADDITION TO THE OFFICIAL LIST OF FAMILY-GROUP NAMES IN ZOOLOGY OF SIX FAMILY-GROUP NAMES IN THE CLASS CEPHALOPODA, ORDER AMMONOIDEA

RULING.—(1) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Amaltheus* Montfort, 1808 (gender : masculine), type-species, by original designation, *Amaltheus margaritatus* Montfort, 1808 (Name No. 1378) ;

(b) *Oxynoticeras* Hyatt, 1875 (gender : neuter), type-species, by selection by S. S. Buckman, 1909, *Ammonites oxynotus* Quenstedt, F. A., 1843 (Name No. 1379) ;

(c) *Phymatoceras* Hyatt, 1867 (gender : neuter), type-species, by monotypy, *Phymatoceras robustum* Hyatt, 1867 (Name No. 1380) ;

(d) *Pleuroacanthites* Canavari, 1883 (gender : masculine), type-species, by selection by Haug, 1889, *Ammonites biformis* J. de C. Sowerby, 1831 (Name No. 1381) ;

(e) *Polymorphites* Haug, 1887 (gender : masculine), type-species, by selection by S. S. Buckman, 1892, *Ammonites polymorphus* Quenstedt, F. A., 1845 (Name No. 1382) ;

(f) *Olcostephanus* M. Neumayr, 1875 (gender : masculine), type-species, by original designation, *Ammonites astierianus* d'Orbigny, 1840 (Name No. 1383).

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *margaritatus* Montfort, 1808, as published in the binomen *Amaltheus margaritatus* (type-species of *Amaltheus* Montfort, 1908) (Name No. 1685) ;

(b) *oxynotus* Quenstedt, F. A., 1843, as published in the binomen *Ammonites oxynotus* (type-species of *Oxynoticeras* Hyatt, 1875) (Name No. 1686) ;

(c) *robustum* Hyatt, 1867, as published in the binomen *Phymatoceras robustum* (type-species of *Phymatoceras* Hyatt, 1867) (Name No. 1687) ;

(d) *biformis* J. de C. Sowerby, 1831, as published in the binomen *Ammonites biformis* (type-species of *Pleuroacanthites* Canavari, 1883) (Name No. 1688) ;

(e) *polymorphus* Quenstedt, F. A., 1845, as published in the binomen *Ammonites polymorphus* (type-species of *Polymorphites* Haug, 1887) (Name No. 1689) ;

(f) *astierianus* d'Orbigny, 1840, as published in the binomen *Ammonites astierianus* (type-species of *Olcostephanus* M. Neumayr, 1875) (Name No. 1690).

(3) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified :

(a) AMALTHEIDAE (correction of AMALTHEOIDAE) Hyatt, 1867 (type-genus *Amaltheus* Montfort, 1808) (Name No. 276) ;

(b) OXYNOTICERATIDAE (correction of OXYNOTIDAE) Hyatt, 1875 (type-genus *Oxynoticeras* Hyatt, 1875) (Name No. 277) ;

(c) PHYMATOCERATINAE (correction of PHYMATOIDAE) Hyatt, 1900 (type-genus *Phymatoceras* Hyatt, 1867) (Name No. 278) ;

(d) PLEUROACANTHITIDAE (correction of PLEURACANTHITIDAE) Hyatt, 1900 type-genus *Pleuroacanthites* Canavari, 1883) (Name No. 279) ;

(e) POLYMORPHITIDAE (correction of POLYMORPHIDAE) Haug, 1887 (type-genus *Polymorphites* Haug, 1887) (Name No. 280) ;

(f) OLCOSTEPHANIDAE (correction of HOLCOSTEPHANIDAE) Haug, 1910 (type-genus *Olcostephanus* Neumayr, 1875) (Name No. 281).

(4) The following generic name is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology : *Holcostephanus* Sayn, G., 1889, an unjustified emendation of *Olcostephanus* Neumayr, M., 1875 (Name No. 1301).

(5) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified :

(a) AMALTHEOIDAE Hyatt, 1867 (type-genus *Amaltheus* Montfort, 1808), an incorrect original spelling for AMALTHEIDAE (Name No. 312) ;

(b) OXYNOTIDAE Hyatt, 1875 (type-genus *Oxynoticeras* Hyatt, 1875), an incorrect original spelling for OXYNOTICERATIDAE (Name No. 313) ;

(c) PHYMATOIDAE Hyatt, 1900 (type-genus *Phymatoceras* Hyatt, 1867), an incorrect original spelling for PHYMATOCERATIDAE (Name No. 314) ;

(d) PLEURACANTHITIDAE Hyatt, 1900 (type-genus *Pleuroacanthites* Canavari, 1883), an incorrect original spelling for PLEUROACANTHITIDAE (Name No. 315) ;

(e) POLYMORPHIDAE Haug, 1887 (type-genus *Polymorphites* Haug, 1887), an incorrect original spelling for POLYMORPHITIDAE (Name No. 316) ;

(f) HOLCOSTEPHANIDAE Haug, 1910 (type-genus *Olcostephanus* Neumayr, 1875), an incorrect original spelling for OLCOSTEPHANIDAE (Name No. 317).

HISTORY OF THE CASE (Z.N.(S.) 954)

On 18 May 1955, the late Dr. W. J. Arkell applied for seven originally misspelled or incorrectly formed family-group names in the Order Ammonoidea to be placed on the Official List. One of these names (DACTYLIOCERATIDAE) was removed from the application because it was dealt with in another case (see Opinion 576). It was not found possible to complete his application before he was struck down by a fatal illness, but as a result of help from other specialists, it was possible to send his paper to the printer on 4 February 1958. It was published on 6 June 1958 in *Bull. zool. Nomencl.* **16** : 62–66.

Support was received from Mr. P. C. Sylvester-Bradley, Dr. D. T. Donovan and Mr. C. W. Wright (all published in *Bull. zool. Nomencl.* **16** : 79), and from Mr. R. V. Melville (Geological Survey and Museum, London). No objection was received from any source.

DECISION OF THE COMMISSION

On 12 March 1959, the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (59)3 either for or against Dr. Arkell's proposals. At the close of the Voting Period on 12 June 1959, the state of the voting was as follows:

Affirmative Votes—twenty-four (24), received in the following order: Lemche, Holthuis, Hemming, Vokes, Prantl, Boschma, Hering, Bonnet, do Amaral, Mertens, Dymond, Mayr, Bodenheimer, Jaczewski, Riley, Obruchev, Key, Stoll, Brinck, Bradley, Kühnelt, Cabrera, Tortonese, Poll.

Negative Votes—none (0).

Votes not returned—three (3); Hankó, Miller, Uchida (late affirmative votes were received from Commissioners Miller and Uchida).

After the close of the above Voting Period, it was noticed that, although the generic name *Olcostephanus* Neumayr, 1875, and the family name OLCOSTEPHANIDAE (correction of HOLCOSTEPHANIDAE) Haug, 1910, had been placed on Official Lists, and the family name HOLCOSTEPHANIDAE on an Official Index by means of the vote so taken, no ruling had been given, nor proposals submitted, in regard to the generic name *Holcostephanus*, on which the incorrect original spelling HOLCOSTEPHANIDAE was based. Mr. C. W. Wright kindly informed the Office of the Commission that the generic name *Holcostephanus* was first published by Sayn, G., 1889, as a deliberate emendation of *Olcostephenus* Neumayr, 1875; and it is clear that this emendation is unjustified, since Neumayr's generic name does not call for corrections under any mandatory provision of the rules, in spite of the fact that the "*Holco-*" spelling was the correct latinized form of the original Greek word.

On 31 July 1959, the Members of the Commission were accordingly asked to vote under the One-Month Rule on Voting Paper (O.M.)(59)3 for or against the placing of the generic name *Holcostephanus* Sayn, G., 1889, on the Official Index of Rejected and Invalid Generic Names in Zoology. At the close of the Voting Period on 31 August 1959, the state of the voting was as follows:

Affirmative Votes—twenty-three (23), received in the following order: Holthuis, Vokes, Boschma, Hering, Brinck, Riley, Bradley, Stoll, Dymond, Jaczewski, Mertens, Key, Hemming, Miller, Bodenheimer, Mayr, Cabrera, Prantl, Obruchev, Kühnelt, Lemche, Hankó, Bonnet.

Negative Votes—one (1): do Amaral ("I think the emendation is perfectly justified on linguistic grounds, the correct family name being HOLCOSTEPHANIDAE").

Votes not returned—three (3): Poll, Tortonese, Uchida (a late affirmative vote was received from Commissioner Poll).

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

AMALTHEIDAE (correction of AMALTHEOIDAE) Hyatt, 1867, *Bull. Mus. comp. Zool.* Harvard **1**(5): 89

AMALTHEOIDAE Hyatt, 1867 (an incorrect original spelling for AMALTHEIDAE)

Amaltheus Montfort, 1808, *Conch. syst. Class. méth. Coquilles* **1**: 90

astierianus, *Ammonites*, d'Orbigny, 1840, *Pal. franc. Terr. crét.* **1** : 115
biformis, *Ammonites*, J. de C. Sowerby, 1831, *in* de la Beche, *Geol. Man.*: 319
HOLCOSTEPHANIDAE Haug, 1910 (an incorrect original spelling of OLCOSTEPHANIDAE)
Holcostephanus Sayn, G., 1889, *Bull. Soc. géol. France* (3) **17** : 679
margaritatus, *Amaltheus*, Montfort, 1808, *Conch. syst. Class. méth. Coquilles* **1** : 91
OLCOSTEPHANIDAE (correction of HOLCOSTEPHANIDAE) Haug, 1910, *Traité Géol.* 2(2) : 1167
Olcostephanus Neumayr, 1875, *Z. deutsch. geol. Ges.* **27** : 922
Oxynoticeras Hyatt, 1875, *Proc. Boston Soc. nat. Hist.* **17** : 230
oxynotus, *Ammonites*, Quenstedt, F. A., 1843, *Floezgeb. Wurtemb.* : 161
Phymatoceras Hyatt, 1867, *Bull. Mus. comp. Zool.* Harvard **1**(5) : 88
PHYMATOCERATINAE (correction of PHYMATOIDAE) Hyatt, 1867, *Bull. Mus. Comp. Zool.* Harvard **1**(5) : 88
PHYMATOIDAE Hyatt, 1867 (an incorrect original spelling for PHYMATOCERATINAE)
Pleuroacanthites Canavari, 1883, *Atti Soc. toscana, Proc. verb.* **3** : 279
PLEURACANTHITIDAE Hyatt, 1900 (an incorrect original spelling for PLEUROACANTHITIDAE)
PLEUROACANTHITIDAE (correction of PLEURACANTHITIDAE) Hyatt, 1900, *in* Zittel's *Textb. Palaeont.* (ed. C. R. Eastman) : 568
POLYMORPHIDAE Haug, 1887 (an incorrect original spelling for POLYMORPHITIDAE
Polymorphites Haug, 1887, *Neues Jahrb. Min.* **1887**, **2** : 107, 120
POLYMORPHITIDAE (correction of POLYMORPHIDAE) Haug, 1887, *Neues Jahrb. Min.* **1887**, **2** : 89
polymorphus, *Ammonites*, Quenstedt, F. A., 1845, *Petref. Deutschl.* : 86
robustum, *Phymatoceras*, Hyatt, 1867, *Bull. Mus. comp. Zool.* Harvard **1**(5) : 88.

The following are the references to the selections of type-species for nominal genera included in the present Ruling :

For *Oxynoticeras* Hyatt, 1867	S. S. Buckman, 1909, *Yorkshire Type Ammonites* **1** : ii
For *Pleuroacanthites* Canavari, 1883	Haug, 1889, *Annu. géol. univ.* **5** for 1888 : 1057
For *Polymorphites* Haug, 1887	S. S. Buckman, 1892, *Mon. Inf. Ool. Amm. Brit. Isles* (Palaeont. Soc.) (6) : 267

CERTIFICATE

We certify that the votes cast on Voting Papers (59)3 and (O.M.)(59)3 were cast as set out above, that the proposals set out in the Voting Papers have been duly adopted, and that the decisions so taken, being the decisions of the International Commission, are truly recorded in the present Opinion No. 575.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
4 *September* 1959

OPINION 576

DESIGNATION UNDER THE PLENARY POWERS OF A TYPE-SPECIES FOR *DACTYLIOCERAS* HYATT, 1867 (CLASS CEPHALOPODA, ORDER AMMONOIDEA)

RULING.—(1) Under the plenary powers, (a) all selections of type-species for the nominal genus *Dactylioceras* Hyatt, 1867, are hereby set aside, and (b) the nominal species *Ammonites communis* J. Sowerby, 1815, is hereby designated type-species of that genus.

(2) The generic name *Dactylioceras* Hyatt, 1867 (gender : neuter), type-species, by designation under the plenary powers in (1)(b) above, *Ammonites communis* J. Sowerby, 1815, is hereby placed on the Official List of Generic Names in Zoology, with the Name No. 1384.

(3) The specific name *communis* J. Sowerby, 1815, as published in the binomen *Ammonites communis* (type-species of *Dactylioceras* Hyatt, 1867) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1691.

(4) The following generic names are placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified :

(a) *Koinodactylites* S. S. Buckman, 1927 (a junior objective synonym of *Dactylioceras* Hyatt, 1867) (Name No. 1302).

(b) *Dactyloceras* Fischer, 1879 (an erroneous subsequent spelling of *Dactylioceras* Hyatt, 1867 (Name No. 1303).

(5) The family-group name DACTYLIOCERATIDAE (correction of DACTYLOIDAE) Hyatt, 1867 (type-genus *Dactylioceras* Hyatt, 1867), is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 282.

(6) The family-group name DACTYLOIDAE Hyatt, 1867 (type-genus *Dactylioceras* Hyatt, 1867) (an incorrect original spelling for DACTYLIOCERATIDAE) is placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 318.

HISTORY OF THE CASE. (Z.N.(S.) 956)

On 18 May 1955, Mr. P. C. Sylvester-Bradley applied for the use of the plenary powers to designate a type-species in harmony with accustomed usage for the nominal genus *Dactylioceras* Hyatt, 1867. It was found that the application overlapped to some extent a simultaneous application from the late Dr. W. J. Arkell relating to certain family-group names in Ammonoidea (see Opinion 575), but after co-ordinating the two cases, and after the delay caused to Dr. Arkell's application by his illness, Mr. Sylvester-Bradley's paper was sent to the printer on 28 January 1958 and was published on 6 June 1958 in *Bull. zool. Nomencl.* **16** : 67–70.

Support was received from the late Dr. W. J. Arkell, the late Dr. L. F. Spath, and Dr. D. T. Donovan (all published in *Bull. zool. Nomencl.* **16** : 80), from Mr. R. V. Melville (Geological Survey & Museum, London) and Professor Alan Wood (University College of Wales, Aberystwyth). No objection was received from any source.

DECISION OF THE COMMISSION

On 12 March 1959, the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (59)4 either for or against the proposals set out in *Bull. zool. Nomencl.* **16** : 69–70. At the close of the Voting Period on 12 June 1959 the state of the voting was as follows :

Affirmative Votes—twenty-four (24), received in the following order : Lemche, Holthuis, Hemming, Vokes, Prantl, Hering, Boschma, Bonnet, do Amaral, Mertens, Dymond, Mayr, Bodenheimer, Jaczewski, Riley, Obruchev, Key, Stoll, Brinck, Bradley, Kühnelt, Cabrera, Tortonese, Poll.

Negative Votes—none (0).

Votes not returned—three (3) : Hankó, Miller, Uchida (late affirmative votes were received from Commissioners Miller and Uchida).

Original References

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

communis, *Ammonites*, J. Sowerby, 1815, *Min. Conch.* **2** : 10

Dactylioceras Hyatt, 1867, *Bull. Mus. comp. Zool.* Harvard **1**(5) : 95

DACTYLIOCERATIDAE (correction of DACTYLOIDAE) Hyatt, 1867, *Bull. Mus. comp. Zool.* Harvard **1**(5) : 87, 94

Dactyloceras Fischer, 1879, *J. Conchyliol.* **27** : 254

DACTYLOIDAE Hyatt, 1867 (an incorrect original spelling for DACTYLIOCERATIDAE)

Koinodactylites S. S. Buckman, 1927, *Type Ammonites* **6**(62) : 43

CERTIFICATE

We certify that the votes cast on Voting Paper (59)4 were cast as set out above, that the proposals set out in the Voting Paper have been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 576.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *July* 1959

OPINION 577

ADDITION TO THE OFFICIAL LISTS OF NAMES IN ZOOLOGY OF THE GENERIC NAMES *CALIGO* HÜBNER, [1819], AND *CHARAXES* OCHSENHEIMER, 1816, AND OF THE FAMILY-GROUP NAMES BASED THEREON (CLASS INSECTA, ORDER LEPIDOPTERA)

RULING.—(1) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Caligo* Hübner, [1819] (gender : feminine), type-species, by selection by Scudder (1875), *Papilio eurilochus* Cramer, [1775] (Name No. 1385) ;

(b) *Charaxes* Ochsenheimer, 1816 (gender : masculine), type-species, by monotypy, *Papilio jasius* Linnaeus, 1767 (Name No. 1386).

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *eurilochus* Cramer, [1775], as published in the binomen *Papilio eurilochus* (type-species of *Caligo* Hübner, [1819]) (Name No. 1692) ;

(b) *jasius* Linnaeus, 1767, as published in the binomen *Papilio jasius* (type-species of *Charaxes* Ochsenheimer, 1816) (Name No. 1693).

(3) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified :

(a) *Caligo* Boisduval, 1870 (a junior homonym of *Caligo* Hübner, [1819]) (Name No. 1304) ;

(b) *Paphia* Fabricius, 1807 (a junior homonym of *Paphia* [Röding], 1798) (Name No. 1305) ;

(c) *Jasia* Swainson, 1832 (a junior objective synonym of *Charaxes* Ochsenheimer, 1816) (Name No. 1306) ;

(d) *Iasius* Westwood, [1850] (an erroneous subsequent spelling of *Jasia* Swainson, 1832) (Name No. 1307).

(4) The specific name *jason* Linnaeus, 1767, as published in the binomen *Papilio jason* (a junior homonym of *Papilio jason* Linnaeus, 1758) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology (Name No. 605).

(5) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified :

(a) CALIGININAE (correction of CALIGONINAE) Fruhstorfer, [1912], (type-genus *Caligo* Hübner, [1819]) (Name No. 283) ;

(b) CHARAXIDAE Doherty, W., 1886 (type-genus *Charaxes* Ochsenheimer, 1816) (Name No. 284).

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified :

(a) CALIGONINAE Fruhstorfer, [1912] (type-genus *Caligo* Hübner, [1819])

Bull. zool. Nomencl., vol. 17, pts. 3–5. December 1959.

(an incorrect original spelling of CALIGININAE) (Name No. 319) ;

(b) CALIGINAE Orfila, 1949 (type-genus *Caligo* Hübner, [1819]) (an unjustified emendation of CALIGONINAE Fruhstorfer, [1912]) (Name No. 320) ;

(c) CHARAXEIDI Wheeler, 1903 (type-genus *Charaxes* Ochsenheimer, 1816) (an erroneous subsequent spelling at the tribe-name level, of CHARAXIDAE Doherty, W., 1886) (Name No. 321) ;

(d) CHARAXIDINAE Aurivillius, [1911] (type-genus *Charaxes* Ochsenheimer, 1816) (an erroneous subsequent spelling, at subfamily-name level, of CHARAXIDAE Doherty, W., 1886) (Name No. 322).

HISTORY OF THE CASE (Z.N.(S.) 1285)

On 28 November 1957, Mr. Francis Hemming (London) applied for the placing of the generic names *Caligo* Hübner, [1819] and *Charaxes* Ochsenheimer, 1816, and the family-group names based thereon, on the Official Lists. Mr. Hemming's application was sent to the printer on 29 November 1957 and was published on 6 June 1958 in *Bull. zool. Nomencl.* **13** : 327–330. No comment was received from any source.

DECISION OF THE COMMISSION

On 6 March 1959 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (59)5 either for or against the proposals on *Bull. zool. Nomencl.* **13** : 329–330. At the end of the prescribed Voting Period on 12 June 1959 the state of the voting was as follows :

Affirmative Votes—twenty-four (24), received in the following order : Lemche, Holthuis, Hemming, Vokes, Prantl, Hering, Boschma, Bonnet, do Amaral, Dymond, Mertens, Mayr, Bodenheimer, Riley, Jaczewski, Obruchev, Key, Stoll, Brinck, Bradley, Kühnelt, Cabrera, Tortonese, Poll.

Negative Votes—none (0).

Leave of Absence—none (0).

Votes not returned—three (3) : Hankó, Miller, Uchida (late affirmative votes were received from Commissioners Miller and Uchida.)

ORIGINAL REFERENCES

Dr. K. H. L. Key submitted the following comment with his Voting Paper : "Although voting for this proposition, I consider that *jason* Linnaeus, 1767, is invalid, not as a junior homonym, but as an invalid original spelling, for that is the status that in my opinion is acquired by a name corrected in the same work by an erratum, irrespective of why the correction was made. This view would entail a modification of paragraph 4 on *Bull. zool. Nomencl.* **13** : 330, as well as the removal of any threat to *jasius* from the possible suppression of *jason* Linnaeus, 1758 (see footnote : 328)."

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

CALIGINAE Orfila, 1949, *Acta zool. lilloana* **8** : 585

CALIGININAE (correction of CALIGONINAE) Fruhstorfer, [1912], *in* Seitz, *Grossschmett. Erde* **5**(137) : 290

Caligo Boisduval, 1870, *Consid. Lép. Guatemala* : 54

Caligo Hübner, [1819], *Verz. bekannt. Schmett.* (4) : 51
CALIGONINAE Fruhstorfer, [1912] (an incorrect original spelling for CALIGININAE)
CHARAXEIDI Wheeler, 1903, *Butts. Switz.* : 99, 149
Charaxes Ochsenheimer, 1816, *Schmett. Europa* **4** : 18
CHARAXIDAE Doherty, W., 1886, *J. asiat. Soc. Bengal* (2) **55**(2) : 109, 124
CHARAXIDINAE Aurivillius, [1911], *in* Seitz, *Grossschmett. Erde* **13**(107) : 122
eurilochus, *Papilio*, Cramer, [1775], *Uitl. Kapellen* **1**(3) : 53, pl. 53, fig. A
Iasius Westwood, [1850], *in* Doubleday, *Gen. diurn. Lep.* (2) : 306
jasius, *Papilio*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1**(2) : 749, errata
jason, *Papilio*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1**(2) : 749
Paphia Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 282

The following is the original reference for the selection of a type-species for a nominal genus concerned in the present Ruling :

For *Caligo* Hübner, [1819]	Scudder, 1875, *Proc. Amer. Acad. Arts Sci.* **10** : 129

CERTIFICATE

WE certify that the votes cast on Voting Paper (59)5 were cast as set out above, that the proposals set out in the voting paper have been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 577.

N. D. RILEY	RICHARD V. MELVILLE
Secretary	*Assistant Secretary*

International Commission on Zoological Nomenclature
London
1 *July* 1959

OPINION 578

USE OF THE PLENARY POWERS TO VALIDATE A NEOTYPE FOR THE NOMINAL SPECIES *CANCER OCULATUS* O. FABRICIUS, 1780, AND TO DESIGNATE THAT SPECIES AS THE TYPE-SPECIES OF THE NOMINAL GENUS *MYSIS* LATREILLE, [1802–1803] (CLASS CRUSTACEA, ORDER MYSIDACEA)

RULING.—(1) Under the plenary powers :

(a) The following names are suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :

  (i) the specific name *pedatus* O. Fabricius, 1780, as published in the binomen *Cancer pedatus* ;

  (ii) the specific name *fabricianus* Leach, 1830, as published in the binomen *Megalophthalmus fabricianus* ;

  (iii) the generic name *Megalophthalmus* Leach, 1830 ;

(b) the neotype for the nominal species *Cancer oculatus* O. Fabricius, 1780, designated by Holmquist, 1958 (*Medd. om Grønl.* **159**(4) : 7) is hereby validated ;

(c) all previous selections of type-species for the nominal genus *Mysis* Latreille, [1802–1803] are hereby set aside, and the nominal species *Cancer oculatus* O. Fabricius, 1780, as defined in (b) above, is hereby designated as the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Mysis* Latreille, [1802–1803] (gender : feminine), type-species, by designation under the plenary powers in (1)(c) above, *Cancer oculatus* O. Fabricius, 1780, as defined under the plenary powers in (1)(b) above (Name No. 1387) ;

(b) *Pugetomysis* Banner, 1948 (gender : feminine), type-species, by monotypy, *Pugetomysis litoralis* Banner, 1948, as interpreted by the lectotype selected by Holmquist, 1958 (*Medd. om Grønl.* **159**(4) : 6) (for use by zoologists who consider *Pugetomysis litoralis* Banner, 1948 and *Cancer oculatus* O. Fabricius, 1780 as not congeneric) (Name No. 1388) ;

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *oculatus* O. Fabricius, 1780, as published in the binomen *Cancer oculatus*, and as defined under the plenary powers in (1)(b) above (type-species of *Mysis* Latreille, [1802–1803]) (Name No. 1694) ;

(b) *litoralis* Banner, 1948, as published in the binomen *Pugetomysis litoralis*, and as defined by the lectotype selected by Holmquist, 1958 (*Medd. om Grønl.* **159**(4) : 6) (type-species of *Pugetomysis* Banner, 1948) (Name No. 1695).

Bull. zool. Nomencl., vol. 17, pts. 3–5. December 1959.

(4) The following generic names[1] are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Megalophthalmus* Leach, 1830 (as suppressed under the plenary powers in (1)(a)(iii) above) (Name No. 1308);

(b) *Megalophthalmus* G. R. Gray, 1832 (a junior homonym of *Megalophthalmus* Leach, 1830) (Name No. 1309);

(c) *Megalophthalmus* Lorenz, 1906 (a junior homonym of *Megalophthalmus* Leach, 1830) (Name No. 1310).

(5) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *pedatus* O. Fabricius, 1780, as published in the binomen *Cancer pedatus* (suppressed under the plenary powers in (1)(a)(i) above) (Name No. 606);

(b) *fabricianus* Leach, 1830, as published in the binomen *Megalophthalmus fabricianus* (suppressed under the plenary powers in (1)(a)(ii) above) (Name No. 607).

(6) The family-group name MYSIDAE Haworth, 1825 (type-genus *Mysis* Latreille, [1802–1803]) is hereby placed on the Official List of Family-Group Names in Zoology (Name No. 285).

(7) The family-group name MYSINA Burmeister, 1837 (type-genus *Mysis* Latreille, [1802–1803]) (an erroneous subsequent spelling of MYSIDAE) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

HISTORY OF THE CASE (Z.N.(S.) 1319)

On 5 February 1958, Miss Charlotte Holmquist (Zoologiska Institutionen, Lund, Sweden) forwarded through Dr. Henning Lemche a request for the use of the plenary powers to designate *Cancer oculatus* O. Fabricius, 1780, as the type-species of *Mysis* Latreille, [1802–1803]. Miss Holmquist's paper was sent to the printer on 17 February 1958 and was published on 6 June 1958 in *Bull. zool. Nomencl.* **16** : 51–61.

Miss Holmquist's application was supported by Dr. Henning Lemche (Universitetets Zoologiske Museum, Copenhagen, Denmark) (*ibid.* : 78).

Public Notice of the possible use of the plenary powers in this case was given in the same part of the *Bulletin* and was also sent to the other prescribed periodicals (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received from any source.

DECISION OF THE COMMISSION

On 12 March 1959, the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (59)6 either for or against the proposals set out in *Bull. zool. Nomencl.* **16** ; 54–56. At the close of the Voting Period on 12 June 1959, the state of the voting was as follows :

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[1] The applicant asked (*Bull. zool. Nomencl.* **16** : 55) for the suppression of these names under the plenary powers, but in view of the fact that they are junior homonyms, such action is unnecessary.

Affirmative Votes—twenty-four (24), received in the following order : Lemche, Holthuis, Hemming, Vokes, Prantl, Hering, Boschma, Bonnet, do Amaral, Jaczewski, Mertens, Dymond, Mayr, Bodenheimer, Riley, Obruchev, Key, Stoll, Brinck, Bradley, Kühnelt, Cabrera, Tortonese, Poll.

Negative Votes—none (0).

Leave of Absence—none (0).

Votes not returned—three (3) : Hankó, Miller, Uchida (late affirmative votes were received from Commissioners Miller and Uchida).

In returning his Voting Paper, Dr. Holthuis commented : " The first author who, to my knowledge, used a family-group name based on the generic name *Mysis* is A. H. Haworth (1825, *Phil. Mag.* **65** : 184), who gave the correct orthography MYSIDAE. I suggest this name to be inserted in the Official List ". Dr. Holthuis's information was found to be correct and paragraphs (6) and (7) of the Ruling above were drafted to take account of it.

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

fabricianus, *Megalophthalmus*, Leach, 1830, *Trans. Plymouth Inst.* **1** : 176–178

litoralis, *Pugetomysis*, Banner, 1948, *Trans. roy. canad. Inst.* **27**(57) : 104–106, pl. 6, fig. 18

Megalophthalmus G. R. Gray, 1832, *in* Griffith's Cuvier *Anim. Kingd.* **14** : 371

Megalophthalmus Leach, 1830, *Trans. Plymouth Inst.* **1** : 176

Megalophthalmus Lorenz, 1906, *Z. deutsch. geol. Ges.* **58** : 62

MYSIDAE Haworth, 1825, *Phil. Mag.* **65** : 184

MYSINA Burmeister, 1837, *Handb. Naturges.* (Abt. 2) : 566

Mysis Latreille, [1802–1803], *Hist. nat. gén. partic. Crust. Ins.* **3** : 36

oculatus, *Cancer*, O. Fabricius, 1780, *Fauna groenl.* : 245

pedatus, *Cancer*, O. Fabricius, 1780, *Fauna groenl.* : 283

Pugetomysis Banner, 1948, *Trans. roy. canad. Inst.* **27**(57) : 104.

The following are the original references for the designations of type-specimens for nominal species involved in the present Ruling :

Lectotype-selection for *Pugetomysis litoralis* Banner, 1948	Holmquist, C., 1958, *Medd. om Grønl.* **159**(4) : 6
Neotype-designation for *Cancer oculatus* O. Fabricius, 1780	Holmquist, C., 1958, *Medd. om. Grønl.* **159**(4) : 7

CERTIFICATE

WE certify that the votes cast on Voting Paper (59)6 were cast as set out above, that the proposals set out in the Voting Paper have been adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 578.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *July* 1959

OPINION 579

DETERMINATION OF THE TYPE-SPECIES OF THE NOMINAL GENUS *ANCILLA* LAMARCK, 1799 (CLASS GASTROPODA)

RULING.—(1) The nominal genus *Ancilla* Lamarck, 1799, (Class Gastropoda) is hereby ruled to have been established without any originally included nominal species, and therefore, under the Rules as revised by the Thirteenth International Congress of Zoology (Paris, 1948) (*Bull. zool. Nomencl.* **4** : 160), the first species subsequently referred to that genus, namely, *Ancilla cinnamomea* Lamarck, 1801, is the type-species of that genus, by subsequent monotypy.

(2) The generic name *Ancilla* Lamarck, 1799 (gender : feminine), type-species, by subsequent monotypy under (1) above, *Ancilla cinnamomea* Lamarck, 1801, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1389.

(3) The specific name *cinnamomea* Lamarck, 1801, as published in the binomen *Ancilla cinnamomea* (type-species of *Ancilla* Lamarck, 1799) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1696.

HISTORY OF THE CASE. (Z.N.(S.) 170)

On 1 November 1937, Mrs. Katharine V. W. Palmer (Palaeontological Research Institution, Ithaca, N.Y., U.S.A.) requested a ruling on the question of the type-species of *Ancilla* Lamarck, 1799. Her application was eventually published on 11 May 1954 in *Bull. zool. Nomencl.* **9** : 219, accompanied (: 219–220) by a paper by Mr. Hemming .

Mrs. Palmer asked whether the citation of a figure (Martini, *Conch.* **2** : pl. 65, figs. 722–724) without a name was sufficient to indicate the nominal species to which the specimen represented in that figure belonged, as the type-species of the genus. Mr. Hemming took the view that, in spite of the fact that the figure in question had been named as *Voluta ampla* by Gmelin, in 1792, and was in fact the basis of that species, *Ancilla* should be treated as a genus established without any originally included nominal species, and this was confirmed by the vote of the Commission.

After the expiry of the six-months comment-period, and after the Voting Paper on this case had been distributed to the members of the Commission, Professor J. Chester Bradley drew attention, in a letter dated 30 November 1954, to an alternative approach to this problem. He referred to the decision of the Paris Congress relating to Opinion 35 (*Bull. zool. Nomencl.* **4** : 156), whereby the type-species of a genus established prior to 1931 without an originally designated or indicated type-species could be determined from among any of the species originally included in the genus, whether then cited under a binominal name or not. In the present case, the figure of Chemnitz which was the sole basis of *Ancilla* Lamarck, 1799, had already in 1792 been given the name of *Voluta ampla* by Gmelin. Professor Chester Bradley therefore suggested that, even though Lamarck had not cited Gmelin's name, and had not even referred to his work, his species could, in the light of the Paris decision on Opinion 35, be regarded as the type-species of *Ancilla*, because it had in effect been cited, though " not under a binominal name " (in point of fact, not by any name).

Professor Chester Bradley put forward two alternative Declarations to cover the present case, the first to provide that a species, in order to be eligible to become the type-species of a genus, must be cited by a binominal name, or by a reference to a binominal name; and the second to provide that reference to an unnamed description or figure would be sufficient to designate a species subsequently named on the basis of that description or figure as the type-species of that genus. It was clear that he himself preferred the former alternative, and in subsequent correspondence he agreed that the method whereby *Ancilla* was regarded as a genus established without originally included species was in fact preferable to that whereby it was regarded as a genus established with an included species not cited under a binominal name ; and he requested that the point of principle involved should be made clear in the Ruling in which the Commission's decision was expressed (see paragraph (1) of the present Ruling). It is quite clear, however, that Professor Chester Bradley's point was a genuine matter of law, and that, owing to the indefinite wording of the Paris decision relating to Opinion 35, it was possible to regard the present case as equally subject to two conflicting provisions of the Rules.

DECISION OF THE COMMISSION

On 26 November 1954 the Members of the Commission were invited to vote under the Three-Month Rule, on Voting Paper (54)93 for or against the proposal relating to the generic name *Ancilla* Lamarck, 1799, set out on *Bull. zool. Nomencl.* **9** : 220, paragraph 5. At the close of the Voting Period on 26 February 1955 the state of the voting was as follows :

Affirmative Votes—twenty (20), received in the following order : Holthuis, Hering, Lemche, Stoll, Vokes, Esaki, Dymond, Jaczewski, Bonnet, Hankó, Boschma, Miller, Key, do Amaral, Hemming, Bodenheimer, Riley, Cabrera, Kühnelt, Sylvester-Bradley.

Negative Votes—one (1) : Chester Bradley.

Leave of Absence—two (2) : Mertens, Prantl.

Votes not returned—none (0).

Original References

The following are the original references for names placed on Official Lists by the Ruling given in the present Opinion :

Ancilla Lamarck, 1799, *Mém. Soc. Hist. nat. Paris* **1** : 70
cinnamomea, *Ancilla*, Lamarck, 1801, *Syst. Anim. s. Vert.* : 73.

CERTIFICATE

We certify that the votes cast on Voting Paper (54)93 were cast as set out above, that the proposals set out in the Voting Paper have been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 579.

N. D. RILEY
Secretary

RICHARD V. MELVILLE
Assistant Secretary

International Commission on Zoological Nomenclature
London
1 *July* 1959

OPINION 580

DETERMINATION OF AUTHORSHIP AND DATE OF THE PARTS OF THE *HISTOIRE NATURELLE DES POISSONS* BY CUVIER & VALENCIENNES, 1828–1850

RULING.—(1) The new names included in Volumes 2 to 22 of the editions known respectively as the "Regular Edition" and the "Strasbourg de luxe Edition" of the work entitled *Histoire Naturelle des Poissons* written partly by Cuvier (G.L.C.F.D.) and partly by Valenciennes (A.), and published 1828–1850 are to be attributed to Cuvier *in* Cuvier & Valenciennes, or, as the case may be, to Valenciennes *in* Cuvier & Valenciennes according to the particulars set out in paragraph (3) of the present Ruling, save as regards certain names attached to descriptions which are clearly marked as having been written by some other author.

(2) The title of the under-mentioned work is hereby placed on the Official List of Works approved as available for use in Zoological Nomenclature with the Title No. 40 :—

Cuvier (G.L.C.F.D.) & Valenciennes (A.), 1828–1850, *Histoire Naturelle des Poissons* (Paris)

(3) The authorship and dates of publication of the various parts of the above work are to be cited according to the particulars set out in Tables I and II.

TABLE I

Authorship

Volume	Regular Edition	Strasbourg de luxe Edition	Author
2	1–238 (line 13)	1–177 (line 11)	Cuvier
	238 (line 14)–249 (line 10)	177 (line 12)–185 (line 20)	Valenciennes
	249 (line 11)–262 (line 4)	185 (line 21)–195 (line 3)	Cuvier
	262 (line 5)–386	195 (line 4)–290	Valenciennes
	387–490	291–371	Cuvier
6	1–425	1–320	Valenciennes
	426–491	321–369	Cuvier
	492 blank	370 blank	
	493–559	371–420	Valenciennes
7	1– –440	1–330	Cuvier
	441–531	331–379	Valenciennes
8	1–470	1–346	Cuvier
	471–509	347–375	Valenciennes
9	1–198	1–147	Cuvier
	199–329	148–244 (line 19)	Valenciennes
	330–359 (line 3)	244 (line 20)–266 (line 5)	Cuvier
	359 (line 4) –371	266 (line 6) –275	Valenciennes
	372–427	276–316	Cuvier
	428 blank		
	429–512	317–379	Valenciennes

Volumes 1, 3, 4 and 5 are by Cuvier; volumes 10-22 by Valenciennes.

Bull. zool. Nomencl., vol. 17, pts. 3–5. December 1959.

TABLE II

Dates of Publication

Octavo issue

Volume	Date (from title page)	Date of Publication*
1 and 2	1828	Oct. 1828
3	1829	Apr. 1829
4	1829	Nov. 1829
5	1830	July 1830
6	1830	Sept. 1830
7	1831	Apr. 1831
8	1831	Jan. 1832
9	1833	Mar. 1833
10	1835	Sept. 1835
11	1836	July 1836
12	1837	Mar. 1837
13	1839	Apr. 1839
14	1839	Jan. 1840
15	1840	Nov. 1840
16	1842	Aug. 1842
17	1844	July 1844
18	1846	Aug. (or Sept.) 1846
19	1846	May 1847
20	1847	Nov. 1847
21	1848	Sept. 1848
22	1849	Jan. 1850 (*i.e.* end of 1849)

* From Sherborn (1925, *Ann. Mag. nat. Hist.* (9) **15** : 600).

HISTORY OF THE CASE (Z.N.(S.) 1228)

On 24 May 1957, Dr. Reeve M. Bailey (University of Michigan, Ann Arbor Michigan, U.S.A.) addressed a preliminary application to the Office of the Commission on the question of the authorship and date to be attributed to the various parts of Cuvier & Valenciennes, *Histoire naturelle des Poissons*, 1828–1850. Dr. Bailey's definitive application was sent to the printer on 2 July 1957 and was published on 30 December 1957 in *Bull. zool. Nomencl.* **13**(10/11) : 309–312.

The following comments were received :—

Dr. Denys W. Tucker (British Museum (Natural History) London).—" I am writing to oppose the application by Dr. Reeve M. Bailey for a ruling determining the authorship of the various portions of Cuvier & Valenciennes' *Histoire Naturelle des Poissons* (1828–1850).

The sole acceptable reason for the addition of an author's name to a taxon is to specify thereby the definition understood and to indicate the reference in which that definition is contained. Other reasons, notably personal credit, have operated but almost always to the acute disadvantage of taxonomy and we may all look forward to an ideal age in which taxonomy will have become stabilised and the addition of authors' names, with its undesirable consequences, will have become unnecessary.

Meanwhile, a citation *Alpha beta* C.V. has, for more than a century, sufficed to indicate to ichthyologists that the original description is contained in one well-known work. Whatever the historical justification for Dr. Bailey's suggestion, the replacement of the time-honoured C.V. citation by the appropriate Cuvier or Valenciennes citation will mean that the workers of the future will have to contend, not only with the descrepancies between pre-ruling and post-ruling literature ; they will also have to search through works of the cited author and even the discovery that a name is contained in the *Histoire Naturelle des Poissons* will not always absolve them from responsibiiity for searching earlier works of the author in question. Thus will practical ichthyology become further encumbered and subordinated to historical, bibliographic and nomenclatorial pedantry."

Dr. Ethelwynn Trewavas (British Museum (Natural History), London).—" Dr. Bailey's proposal is in accordance with the Paris decision recorded in *Bull. zool. Nomencl.* 4 : 565–566, Concl. 49(1)(a), and would need no special ruling of the Commission other than confirmatory, but :

(a) I propose that, on the contrary, the Commission should be asked to rule that names proposed by either Cuvier or Valenciennes in *Histoire Naturelle des Poissons*, a 22-volume work published under their joint names, should constitute an exception to the Recommendation.

My reasons are :

1. The work is a great classic of ichthyology and the only work published jointly by these authors.

2. The purpose of citing an author's (or authors') name(s) is to give a reference, not credit.

3. The names ' Cuvier & Valenciennes ' or their abbreviation ' C. & V.' or ' C.V.' constitute a reference in themselves to which it is only necessary to add volume and page.

4. The double attribution has a century-long tradition behind it.

I would submit further that in accordance with the Recommendation attached to Article 22 ' Cuvier & Valenciennes ' qualify for the time-honoured abbreviation ' C.V.' or ' C. & V.'.

I agree with Dr. Bailey (his paragraph 3) that it is not good practice to copy authority at second hand, without going to the original source, but this objection, carried to its logical conclusion, would be an argument for not using an author's name unless the original description has been checked. It is equally uncritical to obtain the exact authorship from Dr. Bailey's table.

If an author is not in a position to check the original sources, or is not justified by the nature of his work in giving the time to it, the citation of the author's name may still mean something. It means ' the species currently understood as that to which the name was first validly given ' the author's name being the clue to that first valid proposal. It is still the reference, not the author, that is important.

(b) If, however, Dr. Bailey's proposal finds favour, I suggest that the Commission be asked to sanction the abbreviation 'Cuv. *in* C. & V.' and 'Val. *in* C. & V.'"

Dr. A. F. Brunn (Universitetets Zoologiske Museum, Copenhagen).—"I would like to support Dr. Bailey's suggestion in all respects."

I. Ginsburg, R. H. Kanazawa, E. A. Lachner, L. P. Schultz, and W. R. Taylor (U.S. National Museum) *and G. W. Mead* (U.S. Fish and Wildlife Service).—"For the reasons presented below, the undersigned ichthyologists recommend that the Commission deny Dr. Bailey's request as published on page 310, paragraphs 4(1) and 4(2) of the proposal cited above.

1. Few, rather than many, authors have adopted the practice of attributing species in accordance with the authorship of the various parts of Cuvier and Valenciennes's work since the publication of a synopsis of the authorship of these parts by Bailey (*Copeia*, 1951, no. 3, pp. 249–251). Prior to 1951, the new names proposed in this work were usually ascribed to both authors. That practice, in general use for over a hundred years, has created no confusion, and the restricted usage proposed by Dr. Bailey would serve only to increase the work of ichthyologists who cite the names proposed in these volumes.

2. Should the Commission rule in favour of Dr. Bailey's request, a precedent would be set for similar requests to establish single authorship for the new names proposed in other co-authored works that grade imperceptibly from those for which the authorship is easily ascertained (e.g. Cuvier and Valenciennes) to those for which the individual authorship can be determined only with great difficulty. To whom should be credited the new names proposed in Meek and Hildebrand's 'The Marine Fishes of Panama' (*Field Mus. Nat. Hist. Publ.* Zool. Ser. Vol. **15**, pts. 1–3, 1923–28) which was written by Hildebrand after Meek's death ?

Most American ichthylogists know that H. W. Fowler wrote the manuscripts for volumes 7, 8, and 10 (*U.S. nat. Mus. Bull.* **100**, Contributions to the biology of the Philippine Archipelago and adjacent regions 1928–30) but which were published as co-authored works by Fowler and Bean. Are the new names in those three volumes to be attributed to Fowler now or should we wait until an historical account of that project is published and another appeal made to the Commission ? There are other similar instances.

3. Each title-page of the 22-volume *Histoire Naturelle des Poissons* states that the work is to be considered co-authored. The author (or authors) of a volume or of a new name is in a better position to indicate how the volume or name should be cited than anyone else. A confirmation of this intent was expressed by Valenciennes, *Ichthyologie des Iles Canaries*, vol. 2, pt. 2, (*in* Webb and Berthelot, Hist. Nat. des Iles Canaries, 1835-50) for here we find species described in the *Histoire Naturelle des Poissons* attributed to Cuvier and Valenciennes by Valenciennes ; species which Dr. Bailey now proposes to attribute to one or the other of these authors but not to both. (For example, on page 26 of the *Ichthyologie des Iles Canaries* Valenciennes begins a description with '*Pristipoma viridense*. Nob. (2)', with the footnote : '(2) Cuv., Val., Hist. Nat. des Poiss., V. pag. 287', a volume of this latter work which was drafted wholly by Cuvier). Therefore the intent of these authors is clear. Shall we

violate this intent for no useful purpose ?

We conclude that Dr. Bailey's proposal will contribute nothing to taxonomic stability or to the usefulness of Cuvier and Valenciennes's work, hence this recommendation that the Commission deny that application."

DECISION OF THE COMMISSION

On 7 July 1958 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (58)16 either for or against the proposals set out in points (1) and (2) on *Bull. zool. Nomencl.* **13** : 310 paragraph 4 as modified by Miss Trewavas's compromise proposal.

At the close of the Voting Period on 7 October 1958 the state of the voting was as follows :—

(a) Affirmative votes—nineteen (19), received in the following order : Holthuis, Boschma, Bodenheimer, Hemming, Vokes, Riley, Hankó, Hering, Mayr, Lemche, Mertens, Jaczewski, Brinck, Dymond, do Amaral, Stoll, Cabrera, Kühnelt, Bonnet.

(b) Negative votes—two (2) : Prantl, Tortonese.

(c) On leave of absence—three (3) : Bradley, Key, Miller.

(d) Votes not returned—none.

In returning his Voting Paper, Dr. L. B. Holthuis commented : " In my opinion, authors should be free to use either ' Cuvier ' or ' Cuvier *in* Cuvier & Valenciennes ' as the author's name." Dr. Ernst Mayr cast his vote conditionally, asking that it be counted with the majority.

CERTIFICATE

We certify that the votes cast on Voting Paper (58)16 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the Ruling given in the present Opinion No. 580.

N. D. RILEY RICHARD V. MELVILLE
Secretary *Assistant Secretary*
International Commission on Zoological Nomenclature
London
1 *May* 1959.

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

REPORT FOR 1958

1. *INTRODUCTION*

The year 1958 was of critical importance to the Trust.

In January the Rt. Hon. Walter Elliot, P.C., C.H., F.R.S. died. He was an original member of the Trust and had been Chairman since its inception. He rendered invaluable services to the Trust and to Zoological Nomenclature.

In August, Mr. Francis Hemming, C.M.G., C.B.E. resigned his membership of the Trust. This is not the place to record the immense services he rendered to the International Commission, of which he was Honorary Secretary. But the International Trust, of which he was founder and Managing Director and Secretary, desires to acknowledge the tremendous work he carried out voluntarily for Zoological Nomenclature and, in recording his resignation, the members of the Trust place on record their sense of loss at his departure and wish him an early and full recovery in health.

In July the International Congress of Zoology was held in London and, in association with it, the Colloquium on Nomenclature. The Trust had for some time been making financial provision for the unavoidable expense of the Colloquium and the Accounts for 1958 give a full picture.

2. *MEMBERSHIP OF THE TRUST*

During the year the following were elected to membership of the Trust :

Lord Hurcomb, G.C.B., K.B.E.
Mr. N. D. Riley, C.B.E.
Dr. N. Spärck
Dr. N. R. Stoll
Dr. G. F. de Witte
Mr. C. W. Wright

Lord Hurcomb, Mr. Riley and Mr. Wright were elected members of the Committee of Management and Lt.-Col. Francis J. Griffin was appointed Managing Director and Secretary.

3. *PUBLICATIONS*

Volumes of the Bulletin and the Opinions and Declarations appeared during the year but in view of the Colloquium, held in July, two volumes of the Bulletin were reserved for papers required thereat ; Vol. 14 contained the draft of the International Rules and Vol. 15 the Colloquium Agenda Papers.

In addition to the established publications it is a pleasure to report the publication of the first instalment of the several Official Lists.

It is with satisfaction that the Trust record the publication as Vol. 1 Sect. B of the Opinions and Declarations Series, of the Facsimile Edition of Opinions 1–133 which have long been out of print and unobtainable.

4. *FINANCE*

The Income and Expenditure account and the Balance Sheet for 1958 have been prepared and, accompanied by the certificate of the Auditors, are submitted for adoption.

The total receipts for 1958 amount to a little over £19,000 and include £130 from interest and £290 from a donation. The balance of £18,700 was due entirely to the sale of publications.

The increase of £4,000 in this sum compared with 1957 is due to the receipts from the sale of the two volumes of the Bulletin referred to above. Receipts from the sale of the Bulletin in 1958 were, in fact, almost exactly double those for 1957 at £12,000.

The Official List Suspense Account benefited by a transfer of £3,800 from Income and Expenditure account and by £2,800 from sales. At the end of the year it had a balance of £1,500 to its credit.

The Colloquium Suspense Account has been closed. It benefited by a transfer from the Income and Expenditure account of £4,970 and from a grant from UNESCO of £535 to meet the cost of translating and interpreting at the Colloquium. The grateful thanks of the Trust are here expressed to UNESCO for this gift.

The excess of Income over Expenditure on the General account for the year was £10,550 and with the accumulated surplus from earlier years of £8,879 made a grand total of £19,429.

However, as already mentioned, £3,800 was transferred to the Official List account and £4,970 to the Colloquium account—a total of £8,770, which is roughly equivalent to the surplus carried forward at the end of 1957. The net result at the end of the year therefore is that the Trust now has a total available general reserve of £10,659, of which it is certain that a substantial part will be used up in 1959.

In addition there is a balance on the Official List account of £1,500 which is earmarked for the preparation and production of future parts of the Lists.

5. *STAFF*

During the year 1958 there were several changes in Staff. As is already known, Mr. Melville was appointed Scientific Controller, a post he still fills with distinction. Certain Specialists appointed in connection with the Colloquium and the Official Lists have completed their work and a reduction in the office work of the Commission and the Trust made it possible to continue without filling some of the vacancies resulting from resignations. Mrs. Rosner continues to serve the Trust well as Publications Officer.

6. *CONCLUSION*

A very serious note of warning must be sounded concerning the financial future of the Trust.

It has been stated repeatedly that the whole basis on which the activities of the Trust, and therefore to a large extent of the Commission itself, depends, is the receipts from the sale of Publications.

During the period of Mr. Hemming's activities his work for the Trust was performed without remuneration but his successor is necessarily a paid officer. As a result the cost to the Trust of carrying out the work of the International Commission is greatly increased.

Moreover, the view expressed at the high cost of the publications of the Trust and the steps already taken to reduce this cost means that the receipts of the Trust are correspondingly less so that in addition to increased expenditure the Trust is faced with a decrease in revenue.

A close study of this situation has been made by the Committee of Management and strenuous efforts are under way to increase the number of subscribers but it must be clearly understood that the future of the Trust cannot be assured unless it is certain of sufficient income to meet its essential expenses.

(signed) FRANCIS J. GRIFFIN
Managing Director

INTERNATIONAL TRUST FOR

Incorporated under the Companies

Balance Sheet—

1957 £	1957 £		£	s.	d.	£	s.	d.
		Revenue Reserves (per separate accounts)—						
	789	"Official List" Suspense Account	1,474	7	5			
	8,879	Income and Expenditure Account—Balance ...	10,659	2	4			
9,668						12,133	9	9
		Provision for Cost of Colloquium on Zoological Nomenclature—						
742		Colloquium Suspense Account (per separate account)				–	–	–
		Liabilities—						
136		Sundry Creditors				1,269	11	1
£10,546						£13,403	0	10

REPORT OF

We have obtained all the information and explanations which to the best of our knowledge and belief were from our examination of those books. We have examined the above Balance Sheet and accompanying Income our information and according to the explanations given us, the said accounts give the information required by the Trust's affairs at 31st December, 1958, and the Income and Expenditure Account gives a true and fair view of the

Finsbury Circus House,
Blomfield Street,
London, E.C.2.
11*th May* 1959.

ZOOLOGICAL NOMENCLATURE

Act, 1929 (Limited by Guarantee)

31st December, 1958

1957 £	1957 £	£		£	s.	d.	£	s.	d.	£	s.	d.
			Fixed Assets—									
			Office Equipment—									
	377		Book value at 1st July, 1948 and additions since at cost				568	6	0			
	279		*Less* Depreciation and amount written off ...				304	6	0			
98										264	0	0
			Current Assets—									
	3,500		Amounts due for Publications, valued at ...				1,455	0	0			
	—		Sundry amounts prepaid				87	10	0			
			Investments at cost—									
			£2,500 2½% Savings Bonds 1964/67	£2,078	10	6						
			£2,500 3% Savings Bonds 1955/65	2,248	16	9						
	—						4,327	7	3			
			(Market Value at date £4,387)									
			Balances at Bank—									
		—	Deposit Account	5,900	0	0						
		6,946	Current Account	1,348	12	8						
	6,946						7,248	12	8			
	2		Cash in Hand				20	10	11			
10,448										13,139	0	10
			(Note—Stock of Publications not valued)									
£10,546										£13,403	0	10

FRANCIS J. GRIFFIN } Members of the Committee
N. D. RILEY } of Management

THE AUDITORS.

necessary for the purposes of our audit. In our opinion proper books of account have been kept, so far as appears
and Expenditure Account, which are in agreement with the books of account. In our opinion and to the best of
Companies Act, 1948 in the manner so required, and the Balance Sheet gives a true and fair view of the state of the
Excess of Income over Expenditure for the year ended on that date.

(Signed) W. B. KEEN & CO.,
Chartered Accountants.

Income and Expenditure Account for

INCOME

1957 £	£		£	s.	d.	£	s.	d.
		Sales of Publications—						
	8,652	Opinions and Declarations	6,508	4	10			
	6,035	Bulletin of Zoological Nomenclature	12,108	12	4			
	127	Copenhagen Decisions on Zoological Nomenclature	115	3	4			
14,814						18,732	0	6
64		Donations				–	–	–
—		Interest on Bank Deposit Account				131	16	9
179		Grant from U.N.E.S.C.O. per the International Union for Biological Sciences				285	14	3
£15,057						£19,149	11	6

£		£	s.	d.
5,802	Balance brought down	10,550	10	0
6,077	Balance at 31st December, 1957 brought forward...	8,879	1	2
£11,879		£19,429	11	2

he year ended 31st December, 1958

EXPENDITURE

1957 £	£	£		£ s. d.	£ s. d.	£ s. d.
			Administration Expenses—			
			Salaries—			
		1,103	Administration Officers ...	2,912 6 11		
		406	Others	213 9 0		
	1,509				3,125 15 11	
	964		Office Expenses		1,350 18 9	
	52		Audit Fee		136 10 0	
	2,525				4,613 4 8	
			Less: Proportion allocated to—			
		100	"Official List" ...	100 0 0		
		30	"Colloquium" ...	600 0 0		
	130				700 0 0	
2,395						3,913 4 8
22			Depreciation of Office Equipment			25 6 7
			Publications—			
	4,982		Opinions and Declarations		3,835 9 10	
	1,651		Bulletin of Zoological Nomenclature		825 0 5	
	205		Copenhagen Decisions on Zoological Nomenclature		– – –	
6,838						4,660 10 3
5,802			Balance carried down being Excess of Income over Expenditure for the year			10,550 10 0
£15,057						£19,149 11 6

£	£		£ s. d.	£ s. d.
		Transfer to—		
	1,000	"Official List" Suspense Account	3,800 0 0	
	2,000	"Colloquium" Suspense Account	4,970 8 10	
3,000				8,770 8 10
8,879		Balance at 31st December, 1958 carried forward per Balance Sheet		10,659 2 4
£11,879				£19,429 11 2

"Official List" Suspense Account for the year ended 31st December, 1958

1957 £		£	s.	d.
1,000	Transfer from Income and Expenditure Account	3,800	0	0
—	Sales of Publications	2,815	17	6
436	Balance at 31st December, 1957 brought forward	789	10	5
£1,436		£7,405	7	11

1957 £	1957 £		£	s.	d.	£	s.	d.
		Expenditure during the year—						
	547	Salaries and Office Expenses	918	1	8			
	100	Proportion of Administration Expenses	100	0	0			
647						1,018	1	8
		Publications—						
		"Generic Names in Zoology"	2,019	2	0			
		"Specific Names in Zoology"	1,595	19	3			
		"Family Group Names in Zoology"	611	10	5			
		"Works approved and rejected for Zoological Nomenclature"	331	8	2			
—						4,557	19	10
—		Binding Cases				354	19	0
789		Balance at 31st December, 1958 carried forward per Balance Sheet				1,474	7	5
£1,436						£7,405	7	11

Colloquium Suspense Account for the year ended 31st December, 1958

1957 £		£	s.	d.
677	Transfer from "International Code (Publication)" Suspense Account	–	–	–
2,000	Transfer from Income and Expenditure Account	4,970	8	10
—	Grant from U.N.E.S.C.O. per the International Union for Biological Sciences	535	14	3
—	Balance at 31st December, 1957 brought forward	742	6	9
£2,677		£6,248	9	10

1957 £	1957 £		£	s.	d.	£	s.	d.
		Expenditure during the year—						
	415	Salaries and Office Expenses	661	3	4			
	30	Proportion of Administration Expenses	600	0	0			
445						1,261	3	4
		Publications—						
	955	Draft of the "Regles Internationales de la Nomenclature Zoologique" (Bulletin of Zoological Nomenclature, Vol. 14)	1,357	16	4			
	535	Colloquium and Congress Agenda Paper (Bulletin of Zoological Nomenclature, Vol. 15)	3,046	4	11			
1,490						4,404	1	3
—		Translating and Interpreting Fees				525	0	0
—		Transport				58	5	3
742		Balance at 31st December, 1958 carried forward per Balance Sheet				–	–	–
£2,677						£6,248	9	10

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THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

The Official Organ of

THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

12 APR 1960
PURCHASED

Edited by

R. V. MELVILLE

Assistant Secretary to the International Commission on Zoological Nomenclature

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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Secretary: Mr. N. D. RILEY (*British Museum* (*Natural History*), *London*) (23 July 1958)

Assistant Secretary: Dr. W. E. CHINA (*c/o British Museum* (*Natural History*), *Cromwell Road, London, S.W.*7)

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Professor Tohru UCHIDA (*Department of Zoology, Hokkaido University, Japan*) (24 March 1959)

BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 17, Triple Part 6–8 (pp. 161–256) *8th April* 1960

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the plenary powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* :—

(1) Validation of the generic name *Delphax* Fabricius, 1798 (Class Insecta, Order Hemiptera) (Z.N.(S.) 47) ;

(2) Validation of the family-group name PLEUROCERIDAE Fischer, 1885 (Class Gastropoda) (Z.N.(S.) 83) ;

(3) Validation of the generic name *Idotea* Fabricius, 1798 (Class Crustacea, Order Isopoda) (Z.N.(S.) 412) ;

(4) Designation of a type-species for the nominal genus *Macropsis* Lewis, 1834, (Class Insecta, Order Hemiptera) (Z.N.(S.) 456) ;

(5) Suppression of the generic name *Promecopsis* Duméril, 1806 (Class Insecta, Order Hemiptera) (Z.N.(S.) 483) ;

(6) Validation of the specific name *dentipes* Guérin, 1832 (*Alpheus*) (Class Crustacea, Order Decapoda) (Z.N.(S.) 643) ;

(7) Validation of the generic name *Parapenaeus* S. I. Smith, 1885, and interpretation of the nominal species *Peneus membranaceus* Risso, 1816 (Class Crustacea, Order Decapoda) (Z.N.(S.) 645) ;

(8) Suppression of the specific name *longicorne* Latreille, 1804 (*Acrydium*) (Class Insecta, Order Orthoptera) (Z.N.(S.) 675) ;

(9) Stabilization of the names of the North European species of the *Tipula oleracea* group within the genus *Tipula* (Class Insecta, Order Diptera) (Z.N.(S.) 896) ;

(10) Suppression of the generic name *Spatagus* Müller, 1776 (Class Echinoidea) (Z.N.(S.) 195) ;

(11) Suppression of the generic name *Drepanis* Brisson, 1760 (Class Aves) (Z.N.(S.) 901) ;

(12) Designation of a type-species for the nominal genus *Sphaerocoryphe* Angelin, 1854 (Class Trilobita) (Z.N.(S.) 1152) ;

(13) Validation of the familiar usage of the generic name *Tanytarsus* van der Wulp, 1874 (Class Insecta, Order Diptera) (Z.N.(S.) 1245) ;

(14) Designation of a neotype for the nominal species *Dytiscus cinereus* Linnaeus, 1758 (Class Insecta, Order Coleoptera) (Z.N.(S.) 1389) ;

(15) Validation of the generic name *Acilius* Leach, 1817 (Class Insecta, Order Coleoptera) (Z.N.(S.) 1391);

(16) Validation of the specific name *dardanus* Brown, 1776 (*Papilio*) (Class Insecta, Order Lepidoptera) (Z.N.(S.) 1403);

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
1*st October* 1959.

W. E. CHINA
Assistant Secretary
International Commission on
Zoological Nomenclature

COMMENT ON DR. J. WEIR'S REQUEST FOR A RULING ON THE INTERPRETATION OF THE NOMINAL SPECIES *UNIO PHILLIPSII* WILLIAMSON, 1836. Z.N.(S.) 1938

By L. R. Cox (*British Museum* (*Natural History*))

In submitting an application that a certain specimen should serve as the standard of reference for the interpretation of the nominal species *Unio phillipsii* Williamson, which (having been founded on a number of specimens) clearly had no holotype, Dr. J. Weir has been faced with the problem that the type-specimen so designated would not comply with the requirements of a lectotype (since there is no proof that would satisfy a judge and jury that it was a syntype, although there is a strong probability that it was one), while it could not become a neotype since there is no proof that would satisfy a judge and jury that all the original syntypes are lost or destroyed.

This is but one of many cases where there is no certain evidence (such as the original publication of accurate figures, the citation of registration numbers, or the marking of specimens) that any particular specimen or specimens preserved in the collection of the author of a species must be the holotype or syntypes, for there is always the possibility that specimens were added to the collection subsequent to the description of the species. Apart from recognising and proposing a name for yet another category of type-specimen having the status of a holotype, lectotype, or neotype, it appears that the only solution of this unfortunate difficulty will be to refrain from stipulating that a neotype may be designated only when the original holotype or syntypes are lost or destroyed, and to re-define a neotype as follows:—"A single specimen selected to serve as the ultimate standard of reference for the interpretation of a nominal species when the original holotype or syntypes are lost or destroyed, or cannot be identified with certainty." There could be a recommendation that, in this last contingency, the specimen selected as neotype should come from the collection of the author of the species, if this collection is still in existence.

I support Dr. Weir's application that the Manchester Museum specimen L.10106 should be designated as type-specimen of the nominal species *Unio phillipsii* and suggest that this specimen should rank as neotype of the species.

REPORT ON THE GENERIC NAME *DELPHAX* FABRICIUS, 1798 (CLASS INSECTA, ORDER HEMIPTERA) WITH PROPOSALS FOR ITS VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 47.

By R. V. Melville
(*Assistant Secretary, International Commission on Zoological Nomenclature*)

The present case is put before the Commission in the form of a report by the Assistant Secretary rather than as an application from a particular hemipterist because of its long history in the Commission's office and because of the divergent views expressed upon it in correspondence with the Secretariat. The final sets of alternative proposals have been drafted in accordance with what appears to be the best supported view, but they are not necessarily those which would have been made by a zoologist concerned with the names involved. It is therefore hoped that hemipterists will study them carefully and advise the Commission of their wishes in the matter. It is a pleasure to acknowledge the contributions made by the late Professor Z. P. Metcalf, the late Dr. E. D. Ball, the late Dr. E. P. Van Duzee, Dr. W. E. China (British Museum (Natural History), London), Dr. R. G. Fennah (Commonwealth Institute of Entomology, London), Dr. Frej Ossiannilsson (Kungl. Lantbrukshögskola, Uppsala, Sweden) and Dr. Wilhelm Wagner (Hamburg, Germany).

2. The case first began with a letter from the late Professor Metcalf to the late Dr. Stiles (then Secretary to the Commission) dated 7 January 1932 in which the following question was put : " In 1792, Walbaum described the genus *Delphax* in mammalia. This genus is synonymous with *Delphinus* Linnaeus, and this name seems never to have been used. In 1798, Fabricius described the genus *Delphax* Insecta Homoptera and this genus has been used ever since. This genus is the type of a family. The question is whether under these circumstances *Delphax* Fabricius should be considered preoccupied." At Dr. Stiles's request, Professor Metcalf proceeded to collect opinions from his fellow hemipterists on the desirability or otherwise of validating *Delphax* Fabricius, 1798 in Hemiptera (Homoptera) and to seek the views of mammalogists on the effect on nomenclature in their group of the suppression of *Delphax* Walbaum, 1792. Among hemipterists, Dr. Herbert Osborn and Dr. E. P. Van Duzee were in favour of conserving the Fabrician name, but Dr. E. D. Ball opposed the suggestion because he did not think the name of sufficient importance in fields outside systematic entomology. No replies were received from any of the mammalogists approached.

3. On 8 April 1935, Professor Metcalf told Dr. Stiles that he had changed his mind on the case, and said " I have finally decided after careful reconsideration of the whole matter to abandon the use of *Delphax* entirely for insects, as it has been so loosely used that it is practically worthless and to substitute the more recent genus *Araeopus*, and the family name Araeopidae for Delphacidae ". These changes were made in print in *Mem. Mus. comp. Zool. Harvard* **82** : 297, 1938 and in *Gen. Cat. Hemipt.* fasc. 4(3), 1943, apparently on the

grounds that *Delphax* Fabricius, 1798 (Hemiptera) was an invalid homonym of *Delphax* Walbaum, 1792. In fact, however, there was no reason why, under the Law of Homonymy, *Delphax* Fabricius should have been rejected, since in Opinion 21 (*Smithson. Publ.* **1938** : 51–52, July 1910) the Commission had already ruled that the generic names of Klein, 1744 did not gain availability under the Code by reason of being quoted by Walbaum, 1792. *Delphax* Walbaum was such a name, and Dr. Stiles had already in his hands a direct negative answer to Professor Metcalf's inquiry of 7 January 1932 (see paragraph 2 above). The fact that *Delphax* Fabricius is not invalidated by *Delphax* Walbaum was clearly pointed out by Fennah in 1944 (*Proc. biol. Soc. Wash.* **57** : 44), but Metcalf persisted in his view (1947, *J. Tenn. Acad. Sci.* **22** : 232–239).

4. Between 1944 and 1951, Mr. Hemming was in correspondence with Dr. China, Dr. Fennah and Dr. Wagner in order to assemble all the facts surrounding the generic name *Delphax* Fabricius, 1798, since these had not hitherto been made available to the Commission. Thanks to the help given by these specialists, and by Dr. Ossiannilsson through Dr. Wagner, the full history of all the names involved is seen to be as explained below.

5. *Delphax* Fabricius, 1798, *Suppl. Ent. Syst.* : 511 was established with two included species (*ibid.* : 522), *Cicada crassicornis* Panzer, 1796, *Fauna Ins. Germ.* **35** : 19, and *Cicada clavicornis* Fabricius, 1794, *Ent. Syst.* **4** : 41. Various type-selections by Latreille, 1810, Curtis, 1837 and Westwood, 1840 are all invalid, since the species chosen were not one of the two originally included in the genus. Kirkaldy (1903, *Entomologist* **36** : 215) stated that Westwood (1840) had designated *Cicada clavicornis* as the type-species, and although this was an error, he made it clear that he accepted that species as the type-species, thus validating the selection as from his own work of 1903 (see *Bull. zool. Nomencl.* **4** : 181–182). In 1912 Van Duzee (*Bull. Buffalo Soc. nat. Sci.* **10**(2) : 505) selected *Cicada crassicornis* Panzer as the type-species, but this was invalid owing to Kirkaldy's action.

6. In 1796, Latreille (*Précis Caract. gén. Ins.* : 91) described the genus *Cercopis*, but elsewhere in the same work (: xii, 202) he explains that he had misapplied the generic name *Cercopis* Fabricius and accordingly wished to re-establish that name with its original meaning and to replace his misuse of it by *Asiraca*. No species were then referred to *Asiraca*, but in 1802 (*Hist. nat. Ins.* **3** : 259–260) he referred *Cicada crassicornis* Panzer and *Cicada clavicornis* Fabricius to the genus (together with a third species). The same two species were included in *Asiraca* by Latreille in 1804 (*Hist. nat. Ins.* **12** : 316–318) and 1807 (*Gen. Crust. Ins.* **3** : 167–168). He designated *Cicada clavicornis* Fabricius as type-species of *Asiraca* in 1810 (*Consid. gén. Crust. Arachn. Ins.* : 434), and this is the first valid type-selection for the genus. *Asiraca* Latreille, 1796 is therefore a senior objective synonym of *Delphax* Fabricius, 1798.

7. *Araeopus* Spinola, 1839, *Ann. Soc. ent. France* **8** : 336 was established with a single included species, namely, *Cicada crassicornis* Panzer, 1796, which is therefore the type-species by monotypy. China (1957, *Ent. mon. Mag.* **93** : 30) has correctly pointed out that, under the Rules, *Araeopus* and ARAEO-

PIDAE cannot be adopted to replace *Delphax* and DELPHACIDAE, and that Metcalf was wrong to do so.

8. The situation as determined by the strict application of the Rules is thus quite clear. *Delphax* Fabricius, 1798, is, by virtue of Kirkaldy's designation of *Cicada clavicornis* Fabricius as type-species, a junior objective synonym of *Asiraca* Latreille, 1796. *Araeopus* Spinola, 1839, has no bearing on the question, but it would become a junior objective synonym of *Delphax* if the plenary powers were used to set aside Kirkaldy's action and to designate *Cicada crassicornis*. The adoption of *Asiraca* in place of *Delphax* would not invalidate the family-name DELPHACIDAE, since under a rule adopted by the Fourteenth Congress (*Copenhagen Decisions zool. Nomencl.* : 36, para. 54(1)(a), as modified by the Fifteenth Congress in London, 1958) a family-group name in general use is not invalidated by the fact that its type-genus is itself invalid by reason of being a junior synonym.

9. The next question to be considered is to ascertain whether stability and uniformity of nomenclature will be promoted and confusion avoided by the strict application of the Rules to this case, or whether that end can only be achieved by the use of the plenary powers either (a) to suppress *Asiraca* so as to validate *Delphax*, or (b) to vary the type-species of *Delphax* so as to bring about the rejection of *Araeopus*. The views so far expressed to the Commission on this point are set out below.

10. Dr. Wilhelm Wagner, in letters dated 29 September 1950 and 4 October 1951, held that the Rules should be allowed to apply, because *Asiraca* has been almost exclusively used for the *clavicornis* group ; and because *Araeopus* had been used about as often as *Delphax* for the *crassicornis* group prior to the publication of Metcalf's *Gen. Cat. Hemipt.* and more frequently after that date. He also stressed the fact that *Araeopus* is the valid name for *Cicada crassicornis* under the Rules and that it has only one interpretation, whereas *Delphax* has been applied in more than one sense.

11. The opposite point of view, that *Delphax* should be conserved, was expressed by Dr. China in a letter dated 31 January 1945 ; but this argument was based on the assumption (which was in accordance with the Rules then in force) that a family-group name had to be based on a valid generic name. Dr. China's main purpose was to safeguard the family-name DELPHACIDAE, but the fact that this name is in general use as such, and the question of its conservation, is not now to be considered at all in the light of the validity or invalidity of the generic name *Delphax*. The family-name can continue in use whatever is the valid name of its type-genus (see paragraph 8 above).

12. A more recent expression of this view of the question is put forward by Dr. Fennah, in a letter dated 4 May 1959. He points out that " The actions suggested to give the best solution must be judged in relation to their effect on stability and universality of usage. On the basis of Metcalf's Catalogue *Asiraca* had been used, up to 1943, as the basis of a family name, 18 times by six authors (one in co-authorship only, and three of them non-specialists) and of a subfamily name 17 times. *Delphax* has been correspondingly used over 300 times and 15 times respectively, and a further 17 times as the name of a tribe. It is to be noted that as the family includes species of economic

importance, there exists also a substantial literature in which the family name DELPHACIDAE is used and which is not listed by Metcalf, as it is not concerned with systematics. The name ASIRACIDAE has never been in common use among economic entomologists, if indeed it has ever been used. As the subfamilies "ASIRACINAE" and "DELPHACINAE" currently represent the two major groups of the family, it is natural that they should have been used to an approximately equal extent since the time when this division was first proposed. If the Rules are allowed to operate without interference, the interests of stability and universality would obviously not be served. If *Asiraca* is suppressed for priority, confusion will result, as the name "DELPHACINAE" would assume exactly the contrary meaning to that it has now. By contrast, the suppression of Kirkaldy's type-selection so as to validate the selection of *Cicada crassicornis* would stabilize the nomenclature in current use both in word and significance ".

13. The situation disclosed by Mr. Fennah's remarks provides an interesting sidelight on the rules governing family-group names at present in force. According to these rules, it is quite immaterial whether *Delphax* Fabricius, 1798, is a valid generic name or not, although it is essential that the family-name DELPHACIDAE should be preserved, and that so long as that family is divided into subfamilies, one of them must be name DELPHACINAE. The question as to which of those subfamilies is to bear that name is, however, entirely dependent on the question of the type-species of *Delphax*, a name which is an invalid junior objective synonym of *Asiraca*. The maximum number of species eligible for designation as the type-species of *Delphax* is two ; under the Rules, *Cicada clavicornis* is the type-species, and the valid name for the genus is *Asiraca*. Therefore, under the Rules, the subfamily name ASIRACINAE must be replaced by DELPHACINAE. Alternatively, the Plenary Powers could be invoked to designate *Cicada crassicornis* as the type-species of *Delphax* ; but this would bring about the rejection of *Araeopus*, which is at present the valid name for the genus of which *Cicada crassicornis* is the type-species, and of the type-genus of the subfamily currently called DELPHACINAE. The use of the Plenary Powers to designate *Cicada crassicornis* as the type-species of *Delphax* would make that genus the type-genus of the subfamily currently called DELPHACINAE (and of the family DELPHACIDAE). The problem at the family-group level may be expressed as follows : are the nominal subfamilies ASIRACINAE and DELPHACINAE (both within the family DELPHACIDAE) to be identical ; or are the subfamilies DELPHACINAE and ARAEOPINAE (both within the family DELPHACIDAE) to be identical ? At the generic level, the same problem can be expressed in the following terms : is *Delphax* Fabricius, 1798, to be rejected as identical with its senior objective synonym *Asiraca* : or is it to be suppressed as a senior objective synonym of *Araeopus* : or is it to be validated as the name of the genus of which *Cicada crassicornis* is the type-species ?

14. Of the three family-group names involved in this case, that based on *Delphax* Fabricius, 1798, was first published by [Leach], [1815], *Brewster's Edinb. Ency.* **9** : 125, as DELPHACIDA ; the spelling was corrected to DELPHACIDAE by Dohrn, 1859, *Cat. Hemipt.* : 61. That based on *Asiraca* Latreille, 1796, was first published by Motschulsky, 1863, *Bull. Soc. Nat. Moscou* **36** : 108,

as ASIRACIDES, corrected to ASIRACINAE by Kirkaldy, 1902, *J. Bombay nat. Hist. Soc.* **14** : 52. That based on *Araeopus* was first published as ARAEOPIDAE by Metcalf, 1938, *Bull. Mus. comp. Zool. Harvard* **82** : 279–281.

15. It is no part of the purpose of this paper to prejudice the decision of the Commission. It is intended rather to elicit from hemipterists a clear statement of their wishes in the case. The Commission now has before it enough evidence to show that the alternatives are clearly marked. Its choice must be guided, at least in part, by the wishes of hemipterists expressed to it on which of the following alternative courses is preferred : (A) that *Asiraca* (*clavicornis*) and *Araeopus* (*crassicornis*) be accepted as the names of the type-genera of the subfamilies ASIRACINAE and DELPHACINAE respectively ; (B) that the plenary powers be used to make *Delphax* (*clavicornis*) and *Araeopus* (*crassicornis*) the type-genera of those subfamilies ; (C) that those powers be used to make *Asiraca* (*clavicornis*) and *Delphax* (*crassicornis*) the type-genera of those subfamilies. These alternatives may be presented in formally precise terms as follows :—

ALTERNATIVE A

(1) to place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Asiraca* Latreille, 1796 (gender : feminine), type-species, by selection by Latreille, 1810, *Cicada clavicornis* Fabricius, 1794 ;
  (b) *Araeopus* Spinola, 1839 (gender : feminine), type-species, by monotypy, *Cicada crassicornis* Panzer, 1796 ;
(2) to place the generic name *Delphax* Fabricius, 1798, a junior objective synonym of *Asiraca* Latreille, 1796, on the Official Index of Rejected and Invalid Generic Names in Zoology ;
(3) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *clavicornis* Fabricius, 1794, as published in the binomen *Cicada clavicornis* (type-species of *Asiraca* Latreille, 1796) ;
  (b) *crassicornis* Panzer, 1796, as published in the binomen *Cicada crassicornis* (type-species of *Araeopus* Spinola, 1839) ;
(4) to place the following family-group names on the Official List of Family-Group Names in Zoology :
  (a) DELPHACIDAE (correction by Dohrn, 1859, of DELPHACIDA) [Leach], [1815] (type-genus *Asiraca* Latreille, 1796) ;
  (b) ARAEOPIDAE Metcalf, 1938 (type-genus *Araeopus* Spinola, 1839) ;
(5) to place the following family-group name on the Official Index of Rejected and Invalid Family-group Names in Zoology :
  (a) DELPHACIDA [Leach], [1815] (type-genus *Delphax* Fabricius, 1798), an incorrect original spelling of DELPHACIDAE.

ALTERNATIVE B

(1) to use the plenary powers to suppress the generic name *Asiraca* Latreille, 1796, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place the following generic names on the Official List of Generic Names in Zoology:
   (a) *Delphax* Fabricius, 1798 (gender: masculine), type-species, by selection by Kirkaldy, 1903, *Cicada clavicornis* Fabricius, 1794 (validated through the action taken under the plenary powers in (1));
   (b) as (1)(b) of Alternative A;

(3) to place the following specific names on the Official List of Specific Names in Zoology:
   (a) *clavicornis* Fabricius, 1794, as published in the binomen *Cicada clavicornis* (type-species of *Delphax* Fabricius, 1798);
   (b) as (3)(b) of Alternative A;

(4) to place the generic name *Asiraca* Latreille, 1796, as suppressed under the plenary powers in (1) on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) to place the following family-group names on the Official List of Family-Group Names in Zoology:
   (a) DELPHACIDAE (correction by Dohrn, 1859, of DELPHACIDA) [Leach], [1815] (type-genus *Delphax* Fabricius, 1798);
   (b) as (4)(b) of Alternative A;

(6) as (5) of Alternative A.

ALTERNATIVE C

(1) to use the plenary powers to set aside all designations of type-species for *Delphax* Fabricius, 1798, prior to the designation of *Cicada crassicornis* Panzer, 1796, by Van Duzee, 1912;

(2) to place the following generic names on the Official List of Generic Names in Zoology:
   (a) as (1)(a) of Alternative A;
   (b) *Delphax* Fabricius, 1798 (gender: masculine), type-species, by designation under the plenary powers in (1), *Cicada crassicornis* Panzer, 1796;

(3) to place the following specific names on the Official List of Specific Names in Zoology:
   (a) as (3)(a) of Alternative A;
   (b) *crassicornis* Panzer, 1796, as published in the binomen *Cicada crassicornis* (type-species of *Delphax* Fabricius, 1798);

(4) to place the generic name *Araeopus* Spinola, 1839, a junior objective synonym of *Delphax* Fabricius, 1798, on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) to place the following family-group names on the Official List of Family-Group Names in Zoology:
   (a) as (5)(a) of Alternative B;
   (b) ASIRACINAE (correction by Kirkaldy, 1902, of ASIRACIDES) Motschulsky, 1863 (type-genus *Asiraca* Latreille, 1796);

(6) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :
  (a) as (5) of Alternative A ;
  (b) ASIRACIDES Motschulsky, 1863 (type-genus *Asiraca* Latreille, 1796), an incorrect original spelling of ASIRACINAE.

COMMENT ON PROPOSALS RELATING TO *BERAEA* STEPHENS, 1833 (Z.N.(S.) 395) ; *CHAETOPTERYX* STEPHENS, 1829 (Z.N.(S.) 426) ; AND *APATANIA* KOLENATI, 1847 (Z.N.(S.) 427).

(See this volume, pages 32–38)

By H. H. Ross (*State Natural History Division, Urbana, Illinois, U.S.A.*)

I would like to take the opportunity of expressing complete support for proposals Z.N.(S.) 395, 426, and 427. Mr. Kimmins has presented the case for these three proposals in admirable fashion. Cases 395 and 427 have already led to much confusion and disagreement in the literature, confusion of a sort that can be limited only by the action which he has recommended. I hope very much that the Commission will adopt the recommendations which Mr. Kimmins has expressed in these three proposals.

COMMENT ON THE PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAME *ORTHOCERATITES* LAMARCK, 1799. Z.N.(S.) 1395.

(See this volume, pages 25–26.)

By L. J. Chubb (*Geological Survey Department, Kingston, Jamaica, W.I.*)

I should like to support the application by Dr. L. R. Cox that the International Commission on Zoological Nomenclature use its plenary powers to suppress the generic name *Orthoceratites* Lamarck, 1799, and to place the generic name *Hippurites* Lamarck, 1801 on the Official List of Generic Names in Zoology.

I have always doubted whether the figures published by Lapeirouse (1781, pl. X, Figs. 5–6, reproduced by H. Douvillé and C. Dechaseaux) under the name of *Orthoceratites a gouttière en tuyaux d'orgue* really represented a Rudist. They have more resemblance to the Carboniferous Rugose Coral, *Amplexus coralloides* Sowerby, and I suspect that a few specimens of this, or a related species found their way into Lapeirouse's collection.

PROPOSED FURTHER USE OF THE PLENARY POWERS IN THE CASE OF THE GENERIC NAME *PLEUROCERA* RAFINESQUE, 1818 (CLASS GASTROPODA). Z.N.(S.)83

By R. V. Melville (*Assistant Secretary, International Commission on Zoological Nomenclature*)

This report is intended to bring up to date the recommendations published on the present case by Mr. Hemming, then Secretary to the Commission, in 1951 (*Bull. zool. Nomencl.* 2 : 6–17), at a time when it was not necessary to consider the gender of a generic name involved in an application, or to make proposals concerning family-group names based on such generic names. In the present case, the plenary powers may have to be used in the latter connection, and it is for that reason that the present report must be published, and a delay of six months allowed, before the Commission can be asked to vote on the combined issues at stake. The opportunity is taken to present at the same time documents which have accrued on the case since the publication of Mr. Hemming's report. So far as the gender of the generic name is concerned, it is only necessary to say that it is feminine by rule and that it is generally so treated.

2. The early history of the case, which began in 1925, is summarized in Mr. Hemming's report referred to above. The main point at issue is whether the plenary powers should be used to designate *Pleurocera acuta* Rafinesque, 1831, as the type-species of *Pleurocera* Rafinesque, 1818, or whether the Rules should be strictly applied so as to allow *Pleurocera verrucosa* Rafinesque, 1820, to be the type-species. The publication of Mr. Hemming's report elicited only four comments : Dr. Joshua L. Baily (*Bull. zool. Nomencl.* 2 : 338) and Dr. E. Berio (*in. lit.* 4.9.51) supported, and Professor C. R. Boettger (*in lit.* 30.8.51) and Dr. J. P. E. Morrison (*in lit.* 8.10.51) opposed Mr. Hemming's proposal to use the plenary powers to designate *P. acuta* as the type-species.

3. Dr. Morrison drew attention to a twofold error in Mr. Hemming's report : the author cited on p. 14, para. 20(1) and p. 15, para. 21(2) as " Taylor, 1864 " should be " Tryon, 1864 "; and that author did not in fact select *Pleurocera acuta* as the type-species of *Pleurocera*, although he used the generic name in that sense (see quotation from Dr. Pilsbry on p. 8, para. 4(2) of that report).

4. Dr. Morrison expressed his objections as follows : " Information at my hand for some years, and now in press in MS., necessitates the transfer of more than 350 additional specific names into the group of species typified by *acuta* Rafinesque, because they are biologically congeneric. Any argument in favour of " universal usage " for the 85 names commonly listed in *Pleurocera* of Walker is swamped by the 350 additional names for congeneric species that have not been listed in any way under *Pleurocera* since 1863, and probably have never been so listed." (This argument does not make allowance for the fact that the generic name *Pleurocera* must sooner or later be objectively defined, and that it would be better if this were done without the transfer of

names from one genus to another.)

5. Dr. Morrison also sent typescripts of three papers in which his views were presented in detail, and included a letter from Dr. Harald A. Rehder in support of these views. Dr. Rehder requested further that the question of the type-species of *Pleurocera* be tabled until knowledge of the classification of the family PLEUROCERIDAE had been published and critically reviewed.

6. During 1952, and again in 1956, Mr. Hemming tried to obtain the views of other specialists, but without success. The case was eventually revived by Mr. Joseph Rosewater (Museum of Comparative Zoology, Harvard College, Mass., U.S.A.), who wrote on 16 December 1958 expressing disappointment that the names *Pleurocera* Rafinesque, 1818, and *acuta* Rafinesque, 1831, did not appear in the then recently published first instalments of the Official Lists in book form. He was at once invited to express his views more fully, and to suggest the names of other specialists who might be consulted, and as a result, it seems that there is a sufficient body of information, and a sufficiently clear indication of the majority view, to enable the Commission to deliver a ruling. Documents received since Mr. Rosewater's letter are considered in the following paragraphs.

7. Dr. William J. Clench and Dr. Ruth D. Turner (Museum of Comparative Zoology, Harvard) wrote on 29 April 1959 in favour of the use of the plenary powers to designate *Pleurocera acuta* as the type-species of *Pleurocera*, and added : " We feel that this would result in avoidance of confusion in nomenclature and that it is in keeping with the best interests of an understanding of the family-group of which *Pleurocera* is a member."

8. Mr. Rosewater was asked to provide information (a) on the sense in which *Pleurocera* had been used since 1944 (the date of the latest information reviewed in Mr. Hemming's report), and (b) the degree and kind of confusion that would result if *P. verrucosa* were allowed to stand as the type-species. He replied (15 May 1959) to the first question with the following list of 16 works published in or after 1944 in which *Pleurocera* " was used for those forms most resembling, and as though its type-species was, *Pleurocera acuta* Rafinesque, 1831". It will be seen that the list includes textbooks, professional zoological papers, water pollution reports, palaeontological works, and regional catalogues of species.

Goodrich, C., 1944, *Occ. Pap. Mus. Zool. Univ. Mich.* No. **485** : 5

——————, 1944, *Nautilus* **58** : 43

——————, 1944, *Misc. Pub. Mus. Zool. Univ. Mich.* No. **64** : 5, 27

—————— & van der Schalie, H., 1944, *Amer. Midland Nat.* **32** : 259, 302–303

Stenzel, H. B. & Turner, F. E., 1944, *Amer. J. Sci.*, **242** : 289–308 (describes a new fossil (Miocene) species of *Pleurocera* and argues in favour of *P. acuta* as the type-species).

—————— & Hesse, C. J., 1944, *Bull. Amer. Assoc. Pet. Geol.* **28** : 977–1011

Robertson, I. C. & Blakeslee, C. L., 1948, *Buffalo Soc. Nat. Sci., Bull.* **19** : 90

Pennak, R. B., 1953, *Freshwater invertebrates of the United States.* New York

Shrock, R. R. & Twenhofel, W. H., 1953, *Principles of invertebrate paleontology.* New York

La Rocque, A., 1953, *Bull. nat. Mus. Canada* **129** : 272
Clench, W. J., 1954, *Syst. Zool.* **3** : 123–124
Ingram, W. M., 1956, *J. Amer. Water Works Assoc.* **48** : 258, 259, 264
____________, 1957 *in* Biological probems in water pollution ; Trans. seminar . . . water pollution. U.S. Dept. Health Ed., Welfare ; Public Health Service, Cincinnati, Ohio.
Rosewater, J., 1959, *Amer. Malac. Union Ann. Rep.* for 1958, *Bull.* **25** : 23–24
____________ (in press) *Amer. Malac. Union Ann. Rep.* for 1959.
____________ (in press) *Nautilus* **73**
Clench, W. J., 1959 Mollusca *in* Ward & Whipple, *Fresh-Water Biology* (2nd ed.) : 1137

Mr. Rosewater went on : " The following, Dr. Morrison's papers, are the only ones I know of since 1944 in which the genus *Pleurocera* is used unqualifiedly in reference to the group of which *P. verrucosa* Raf. is a member : 1952, *Amer. Malac. Union News Bull. and Ann. Rep.* for 1951 : 7 ; and 1954, *Proc. U.S. nat. Mus.* **103** : 362–363." (These are two of the papers of which Dr. Morrison had earlier sent typescripts to the Commission's office.)

9. Mr. Rosewater replied as follows to the second question that had been put to him : " If *verrucosa* is accepted as type-species of *Pleurocera*, then that generic name will no longer be applied to the group of which *acuta* is a member, but to the group which has been known by the name *Lithasia* Haldeman, 1841, with few exceptions, for over 50 years. The then nameless *acuta*-group will fall a prey to one of two eventualities : either it will have resurrected for it the earliest available synonym, *Ceriphasia* Swainson, 1840, or it will be combined with another generic group, *Goniobasis* Lea, 1862 (Dr. Morrison uses the generic name *Oxytrema* Rafinesque, 1819 for this combined genus). In my opinion, there is insufficient evidence for this combination, and the smallest actual change in zoological nomenclature will result from *making the change* which has already been recommended by Mr. Hemming. The argument that modern taxonomic work would produce so many small genera that it would not matter very much which of them was called *Pleurocera* does not seem a valid one to me. Modern work has tended to reduce the numbers of species within the genera by synonymizing variable forms or by reducing them to subspecies. This alone makes for small genera. We already have them in the PLEUROCERIDAE, and they have been understood by malacologists according to concepts and usage during nearly three generations. It *does* matter which genus is called *Pleurocera*, because what has been called by that name has been recognised for so long and is still being used in this sense by most workers in North America. To call *verrucosa* and its allies *Pleurocera* would change a nomenclatorially-linked generic concept of long standing."

10. Professor Henry van der Schalie (University of Michigan) wrote on 12 June 1959 as follows : " My colleague Dr. John B. Burch has written out his opinion, and as it is one with which I completely concur, I shall quote his statements. 'After reviewing the available evidence and previous history of the controversy concerning the type-species of *Pleurocera* Rafinesque, 1818, I am in agreement with the recommendations set forth by Hemming, i.e. to set aside all designations of type-species for this genus and to designate *Pleuro-*

cera acuta Rafinesque as its type-species. It is my opinion that almost all fresh-water zoologists presently follow Walker's 1917 Synopsis (*Misc. Pub. Univ. Mich.* No. 6) which recognises *P. acuta* as the type-species of *Pleurocera*. I agree with Prof. H. Van Cleave and Dr. Pilsbry that " the formal acceptance of *P. verrucosa* would result in widespread confusion." Little has been published since 1950 on this subject. Dr. Morrison has published twice (one paper is merely an abstract of the other) advocating the use of *P. verrucosa* as the type-species. However, this opinion appears to be somewhat biased in that it does not present all the arguments. In particular, he omits any reference to Walker's 1917 discussion (*Occ. Pap. Mus. Zool. Univ. Mich.* No. **38**). It is merely a matter of conjecture to presume that future revisions will drastically revise the nomenclature which is currently most accepted. Hence this consideration has no bearing on the present problem. The use of " biological characters " (e.g. egg-laying) for generic and subgeneric group distinctions among pleurocerid snails is so premature as to make discussions of them almost totally valueless.' Somehow such workers as Dr. Morrison seem to forget that Dr. Walker was not only one of the best students of fresh-water mollusca, but he was considered to be an unusually good lawyer. His handling of the case is in itself an example of the skill Dr. Walker had in using his knowledge of biology of the group concerned and applying his legal training to clear up this problem. His conclusions may not have been strictly in accord with rules in force at the present time, but his work has had a formative influence on current usage. Dr. Morrison may be on grounds that can be justified by the strict letter of the law, but they seem to me untenable if stability of nomenclature is to be taken into consideration."

11. It is clear that the family to which *Pleurocera* is referred is generally, if not universally, known by the name PLEUROCERIDAE, but this is not the oldest available family-group name involved. Troschel (1857, *Gebiss der Schnecken* **1** : 109) used the term "Ancyloti " but it is clear from the context (p. 95) that he did not intend this to be a family-group name. The earliest undoubted family-group name that needs to be considered is CERAPHASIINAE [*sic*] Gill, 1863 (*Proc. Acad. nat. Sci. Philad.* **15** : 34), apparently an incorrect original spelling for CERIPHASIINAE, and based on the generic name *Ceriphasia* Swainson, 1840. As stated in paragraph 9 above, *Ceriphasia* is regarded as a synonym of *Pleurocera*, and the name CERIPHASIINAE has never, according to Mr. Rosewater, come into use. It should therefore be suppressed under the plenary powers, in the interest of preserving PLEUROCERIDAE. The next name to be considered is STREPOMATIDAE Haldeman, 1863, *Proc. Acad. nat. Sci. Philad.* **15** : 274. This is based on the generic name *Strepoma*, which appears to have existed only as a manuscript name of Rafinesque's and is quite unknown as an available name. STREPOMATIDAE can therefore be rejected on the grounds that it is not based on an available generic name. PLEUROCERIDAE Fischer, 1885, *Manuel de Conchyliologie* : 705 is the name that is in general use, and it should be preserved by the suppression of CERIPHASIINAE and the rejection of STREPOMATIDAE already suggested.

12. Finally, it is only necessary to consider the name of the genus to which *Pleurocera verrucosa* Rafinesque, 1820, is referred. This is *Lithasia* Haldeman

1840, *Monogr. Limniades or Freshwater Univalve Shells N. Amer.*, Suppl. to No. 1, with type-species, by monotypy, *Anculosa* (*Lithasia*) *geniculata* Haldeman, *ibid.* These names can now be placed on the appropriate Official Lists.

13. It is therefore proposed that the International Commission on Zoological Nomenclature take the following actions in addition to those already put forward in Mr. Hemming's report:

(4) use its plenary powers to suppress the family-group name CERIPHASIINAE (correction of CERAPHASIINAE) Gill, 1863, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(5) state in the ruling requested under point (2) of Mr. Hemming's proposals that the gender of the generic name *Pleurocera* is feminine;

(6) place the generic name *Lithasia* Haldeman, 1840 (gender: feminine), type-species, by monotypy, *Anculosa* (*Lithasia*) *geniculata* Haldeman, 1840, on the Official List of Generic Names in Zoology;

(7) place the specific name *geniculata* Haldeman, 1840, as published in the combination *Anculosa* (*Lithasia*) *geniculata* (type-species of *Lithasia* Haldeman, 1840) on the Official List of Specific Names in Zoology;

(8) place the following family-group names on the Official Index of Rejected and Invalid Family-group Names in Zoology:

  (a) CERIPHASIINAE (correction of CERAPHASIINAE) Gill, 1863 (type-genus *Ceriphasia* Swainson, 1840), as suppressed under the plenary powers in (4) above;

  (b) CERAPHASIINAE Gill, 1863 (an incorrect original spelling of CERIPHASIINAE);

  (c) STREPOMATIDAE Haldeman, 1863 (invalid because not based on an available generic name);

(9) place the family-group name PLEUROCERIDAE Fischer, 1885 (type-genus *Pleurocera* Rafinesque, 1818), as validated by the actions taken under (4) and (8) above, on the Official List of Family-Group Names in Zoology.

REQUEST FOR A RULING ON THE DATE OF THE GENERIC NAME *HANSENIA* MELICHAR (CLASS INSECTA, ORDER HEMIPTERA).

Z.N.(S.) 173

By R. G. Fennah (*Commonwealth Institute of Entomology, London*)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to give a Ruling on the date to be attributed to the generic name *Hansenia* Melichar.

2. In 1844 (*Icon. Règne Anim. Ins.* : 361) Guérin described under the name *Poeciloptera pulverulenta* a species from the Bay of Campeche (a part of the Gulf of Mexico).

3. In *Ann. naturh. Hofmus. Wien* **16** : 195, 228 (dated 1901 on the title page), Melichar established a new nominal genus *Hansenia*, and designated *Poeciloptera pulverulenta* Guérin as its type-species. In 1902 (*J. Bombay nat. Hist. Soc.* **14** : 53) Kirkaldy published a paper read at a meeting held in November 1901 in which he also published, as a new generic name, the name *Hansenia* with *Poeciloptera glauca* Kirby, 1891 (*J. linn. Soc. Lond.* **24** : 154, pl. 6, fig. 14) as type-species.

4. Both Melichar and Kirkaldy identified the nominal species *Poeciloptera pulverulenta* Guérin and *Poeciloptera glauca* Kirby with one another. Melichar, who indicated that he had examined the type-material of both these nominal species, adopted the specific name *pulverulenta* Guérin, sinking *glauca* Kirby as a synonym, while Kirkaldy took the opposite course by adopting *glauca* Kirby as the valid name and treating *pulverulenta* Guérin as a synonym.

5. In 1903 (*Homopt. Ceylon*) Melichar, when using the generic name *Hansenia*, attributed it to Kirkaldy, placing in it *H. pulverulenta* (Guérin) and *H. kirbyi* Melichar.

6. In 1903 (*Entomologist* **36** : 79) Kirkaldy appears to have realised that *Poeciloptera pulverulenta* Guérin and *Poeciloptera glauca* Kirby were not synonyms of one another but were names for a New World and an Old World species respectively, and that therefore the synonymy noted in paragraph 4 above was incorrect.

7. In 1906 (*Fauna Brit. Ind.*, Rynch. **3** : 411) Distant cited the nominal genus *Hansenia* Kirkaldy with *Poeciloptera glauca* Kirby as type-species. In 1923 (*in* Wytsman's *Gen. Ins.* **182** : 67) Melichar also attributed the generic name *Hansenia* to Kirkaldy instead of to himself and treated (correctly) *Poeciloptera glauca* Kirby as the type-species. The species *Poeciloptera pulverulenta* Guérin, which he had made the type-species of his own genus *Hansenia* he now designated as type-species of a new nominal genus, *Ormenoflata*.

8. Although Melichar's settlement of the *Hansenia* problem has been followed by later authors, it appeared until recently that it did not in fact do so under the Rules, for it involved the acceptance, as a valid name, of *Hansenia* Kirkaldy, 1902, which appeared to be invalid as a junior homonym of *Hansenia* Melichar. The acceptance of *Hansenia* Melichar as the valid name would involve the

transfer of the name *Hansenia* from an Old World genus to a New World genus.

9. However, Kirkaldy stated (1903, *Entomologist* **36** : 79) that Heft 3–4, Band XVI of *Ann. naturh. Hofmus. Wien* (i.e. the Heft containing the name *Hansenia* Melichar) was not published until June 1902, whereas his own paper containing the homonymous name *Hansenia* Kirkaldy was published in January 1902 and therefore that the name *Hansenia* Kirkaldy had priority. The contents of this Heft (including reference to an event which took place on 28 December 1901) were recorded in the *Zoological Record* for 1901, but this was not published until 1903 so that it would have been possible for a paper published in 1902 to have been recorded in it. The British Museum (Natural History) copy of Band XVI, Heft 3–4 was not received until 13 July 1903. Usually Heft 1 & 2 of each year were received at this Museum in the June or July of the following year. The Naturhistorisches Museum of Vienna is only able to say that Melichar's Monograph must have been published between 1 January 1901 and 1 August 1902. The Zoological Society of London copy of Band XVI, Heft 3–4 was received on 23 May 1902, and this, which is the earliest date at present known by which the work could have been published, becomes the latest date of publication which is compatible with the evidence, and must, under the Rules, be the date to be attributed to the generic name *Hansenia* Melichar. *Hansenia* Melichar thus becomes a junior homonym of *Hansenia* Kirkaldy, which was published in January 1902.

10. I, however, consider that the evidence suggests that the use of the name *pulverulenta* Guérin by Melichar on page 228 and 229 of Heft 3 under *Hansenia* is an error transcribed from a communication from Kirkaldy ; and definitely proves that Melichar intended this genus to be based on the insect now known as *glauca*. The evidence is set out below :—

(a) On page 195 of Heft 3–4 *Hansenia* n.g. is keyed out under " Beide Fühlerglieder fast gleich lang ". The original description of generic characters includes " Das erste und zweite Fühlerglied gleich lang, die Fühler den Stirnrand überragend . . . Hintershienen mit einem Dorne ". *Poeciloptera pulverulenta* Guérin does not have any of these characters : *P. glauca* Kirby has all.

(b) In pl. 2, fig. 3 of the Monograph (in Band XVII) Melichar figures "*Hansenia pulverulenta*" Guérin (figure references on pages 229, Band XVI; 234, and 251, Band XVII). The figure is unmistakably *P. glauca* Kirby or *H. kirbyi* Melichar and cannot possibly be *Poeciloptera pulverulenta* Guérin.

(c) Melichar cites the distribution of *H. pulverulenta* (Guérin) (: 229) exactly as follows :—" Ceylon, Pundaloya, Campeche, Paradeniya ". On pages 228 (Band XVI) and 234 (Band XVII) he gives the distribution of *H. pulverulenta* as " Ceylon ". Nowhere does he recognise *Hansenia pulverulenta* Guérin as a Central American species and, as the above citation shows, apparently overlooked the true location of Campeche.

(d) On page 70 of Heft 1–2, Band XVII, Melichar correctly describes *Poeciloptera pulverulenta* Guérin under *Ormenis*, and gives the distribution " Centralamerika, Mexico (Typen im Stockholmer und im Wiener k.k. Hofmuseum) ".

(e) In his " Verzeichnis der Artennamen " Melichar lists "*pulverulenta*" twice, with the *Hansenia* and *Ormenis* references respectively, quite oblivious of the fact that he had used the same name for two entirely different species.

(f) While Melichar's figure of "*Hansenia pulverulenta*" and citation of *Poeciloptera glauca* Kirby in synonymy absolutely prove that he based the generic concept *Hansenia* on the insect now known as *Poeciloptera glauca*, it remains for Kirkaldy to provide a clue to Melichar's extraordinary lapse. In *The Entomologist*, 1903, **36** : 79, he wrote that he had wrongly synonymised *P. pulverulenta* and *P. glauca* and had been followed by Melichar in this error. In other words Melichar's error was almost certainly due to an unthinking transcription.

(g) I do not think that this is proof that Melichar received Kirkaldy's paper before he published his own. If he had he would have published "*Hansenia* Kirkaldy" with a bibliographic reference, and not "*Hansenia* n.g.". Moreover, while in Heft 3–4 of Band XVI (1901) he published the genus as new, in the index to genera on page 246 of Heft 1–2, Band XVII (1902) he lists "*Hansenia* Kirkaldy" and does not mention *Hansenia* Melichar.

(h) It is highly probable that Kirkaldy, an avowed admirer of Hansen's work, coined the generic name and synonymy, and as he knew that Melichar was compiling a comprehensive monograph on the family FLATIDAE (Kirkaldy noted this in his 1902 paper), advised him privately of his actions. Melichar, not knowing whether Kirkaldy's genus was published or not, was forced to insert the genus as new in order to expedite the submission of his part I to press. Before he compiled the index of genera at the end of part II in 1902 he discovered that Kirkaldy's generic name had been published and accordingly suppressed his own name in favour of Kirkaldy in the index.

11. In view of this evidence I request the International Commission on Zoological Nomenclature :—

(1) To give a Ruling that Melichar's monograph contained in Heft 3–4 of Band XVI of *Ann. naturh. Hofmus. Wien* is to be considered to have been published on [23 May 1902]—the earliest date that is compatible with the evidence ;

(2) to place the under-mentioned generic names on the Official List of Generic Names in Zoology :—

  (a) *Hansenia* Kirkaldy, 1902 (gender : feminine), type-species, by original designation, *Poeciloptera glauca* Kirby, 1891 ;

  (b) *Ormenoflata* Melichar, 1923 (gender : feminine), type-species, by original designation, *Poeciloptera pulverulenta* Guérin, 1844 ;

(3) to place the under-mentioned specific names on the Official List of Specific Names in Zoology :—

  (a) *pulverulenta* Guérin, 1844, as published in the binomen *Poeciloptera pulverulenta* (type-species of *Ormenoflata* Melichar, 1923) ;

  (b) *glauca* Kirby, 1891, as published in the binomen *Poeciloptera glauca* (type-species of *Hansenia* Kirkaldy, 1902) ;

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the generic name *Hansenia* Melichar, [1902] (a junior homonym of *Hansenia* Kirkaldy, 1902).

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE GENERIC NAME *IDOTEA* J. C. FABRICIUS, 1798 (CLASS CRUSTACEA, ORDER ISOPODA) AND MATTERS CONNECTED THEREWITH.

Z.N.(S.) 412

By Poul E. Heegaard (*University of Indonesia, Bandung, Indonesia*) and L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands*)

The object of the present application is to seek the assistance of the International Commission on Zoological Nomenclature for the purpose of validating, through the use of its plenary powers, the generic name *Idotea* J. C. Fabricius, 1798 (*Suppl. Ent. syst.* : 297, 302) for the well-known genus of Isopoda to which it is universally applied.

2. The generic name *Idotea* J. C. Fabricius, 1798, sometimes incorrectly spelled *Idothea*, is at present used by all carcinologists to denote a common and widely distributed genus of Isopoda. From a strict nomenclatorial viewpoint, however, this name is invalid as a junior homonym of *Idotea* Weber, 1795 (*Nomencl. ent.* : 94), a name proposed for a genus of Decapod Crustacea, for which it has never been used except by its original author. A suppression of the name *Idotea* Weber, 1795, which is a junior objective synonym of *Emerita* Scopoli, 1777 (*Introd. Hist. nat.* : 405) will not cause any change in the nomenclature of the Decapoda, while it will prevent an enormous confusion in that of the Isopod Crustacea. In our opinion, therefore the use of the plenary powers is fully justified here.

3. It was Rathbun (1904, *Proc. biol. Soc. Washington* **17** : 171) who first pointed out that the name " *Idotea* is not available for a genus of Isopods as defined by Fabricius, 1798 ", but she left it to her colleague Richardson (1905, *ibid.* **18** : 9) to find the correct name for the Isopod genus concerned. According to Richardson this name should be *Idothea* J. C. Fabricius, 1799 (*Index alph. Suppl. Ent. syst.* : 27), which she thought to be an emendation of *Idotea* J. C. Fabricius, 1798 ; however, according to the Rules, J. C. Fabricius's 1799 name can only be considered an erroneous spelling of *Idotea* and thus has no status in nomenclature. The result of Miss Richardson's publication was that those authors who considered *Idotea* J. C. Fabricius, 1798, invalid, used the name *Idothea* J. C. Fabricius, 1799, for the genus, while those who were opposed to digging up Weber's 1795 names continued to use the former (1798) name, which by some was misspelled *Idothea*. This is the reason why *Idot(h)ea* is still in current use for the Isopod genus and is adopted by all workers in the group. If the Commission under their plenary powers decide to place *Idotea* J. C. Fabricius, 1798, on the Official List, then the erroneous spelling *Idothea* J. C. Fabricius, 1799, the *nomen nudum Idothea* J. C. Fabricius, 1796 (*Index Ent. syst.* : 86), and Richardson's (1905 : 10) emendation *Idothea* should all be placed on the Official Index. If the Commission decides not to use its plenary powers here, the correct name for the genus concerned will be *Gonotus*

Rafinesque, 1814 (*Préc. Découv. Trav. somiol.* : 26), a highly obscure name which has never been used except by its original author.

4. The first type-selection for *Idotea* J. C. Fabricius, 1798, is that by Latreille, 1810 (*Consid. gén. Crust. Arach. Ins.* : 109, 423), who designated " *Cymothoa entomon* Fab." [=*Oniscus entomon* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 636]. This selection is, however, invalid, as *Oniscus entomon* is not among the species originally included by J. C. Fabricius (1798) in his genus *Idotea*. This is very fortunate, since *Oniscus entomon* L. is at present treated as the type-species of a distinct genus *Saduria* Adams (1852, *Sutherland's J. Voy. Baffin Bay Barrow Strait* **2** : ccvii). This genus is often cited with the name *Mesidotea* Richardson, 1905 (*Bull. U.S. nat. Mus.* **54** : 347), which, however, is a junior synonym of *Saduria* (see Bowman, 1955, *J. Wash. Acad. Sci.* **45** : 225). As far as we know, no type-species has ever been designated for *Mesidotea* Richardson, and we therefore now select as such *Oniscus entomon* Linnaeus, 1758. This selection makes the synonymy of *Mesidotea* Richardson and *Saduria* Adams an objective one. It seems best now to place the generic name *Saduria* Adams on the Official List and *Mesidotea* Richardson on the Official Index. *Mesidotea*, though a well-known name, is not in such general use that its replacement by *Saduria* will cause undesirable confusion.

5. The first valid type-selection for *Idotea* J. C. Fabricius, 1798, is that by Miers, 1881 (*J. linn. Soc. London, Zool.* **16** : 24), who stated : " This section [of *Idotea* Fabr.] includes *Idotea marina* (Linn.), which may be considered the type of the genus in its restricted sense ". *Oniscus marinus* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 637) was included by J. C. Fabricius, 1798, in the original establishment of *Idotea* and at present is still considered to be a species of that genus, but this type-selection, though perfectly valid, has a serious drawback, namely, the doubtful identity of the nominal species *Oniscus marinus* L. As shown by Dahl, 1916 (*Asseln Isop. Deutschl.* : 29), this species has been identified by various authors with different species of Isopoda : with *Cymothoa emarginata* J. C. Fabricius, 1793 (*Ent. syst.* **2** : 508) by De Geer (1778, *Mém. Hist. Ins.* **7** : 522) ; with *Jaera albifrons* [Leach], [1814] (Brewster's *Edin. Ency.* **7**(2) : 434) by *O. Fabricius*, 1780 (*Fauna Groenl.* : 252) and G. O. Sars, 1897 (*Crust. Norway* **2**(5, 6) : 104) ; and with *Oniscus balthicus* Pallas, 1772 (*Spicil. Zool.* (9) : 66) by J. C. Fabricius, 1793 (*Ent. syst.* **2** : 506) and Miers, 1881 (*J. linn. Soc. London, Zool.* **16** : 25). Many authors followed Sars, but others followed Miers, so that in recent literature the name *marina* is used either for a species of *Jaera* (often with O. Fabricius cited as the author) or for a species of *Idotea*. Since *Oniscus marinus* Linnaeus undoubtedly is a species of *Idotea*, the practice of applying the name to a species of *Jaera* is positively incorrect. Miers (1881 : 30, 31) remarked : " In the Linnean Cabinet at the rooms of the Linnean Society at Burlington House is a specimen which bears the name ' *marinus* ', in what is undoubtedly Linnaeus's handwriting. Hence I have little hesitation in citing his name for this species ". This statement seems definitely to decide the matter in favour of Miers's view. Unfortunately, however, Miers's concept of *Idotea marina* (L.) was very wide and included not only Pallas's *Oniscus balthicus*, but also several forms which at present are considered to represent distinct species. Linnaeus's type material was re-examined by the junior

author in June 1956. This showed that tray 204 of Cabinet 60 of the Linnean collection at Burlington House, London, contains four dry pinned specimens of *Idotea*, placed together in a single row. Two of these specimens are not labelled and prove to belong to *Idotea granulosa* Rathke, 1843 and *I. chelipes* (Pallas, 1766). The third belongs to *I. linearis* (Linnaeus, 1763) and is labelled " linearis " : this is evidently the type of *Oniscus linearis* Linnaeus, 1763. The fourth specimen is clearly the holotype of *Oniscus marinus* L., for it is provided with a label bearing the inscription " marinus ", which must be the label referred to by Miers (1881). This last specimen proves to belong to the species which at present is known by the name *Idotea neglecta* Sars, 1897 (*Crust. Norway* 2(5, 6) : 84). The discovery of the identity of Linnaeus's type-specimen makes it necessary to transfer the name *marina* from one species of *Idotea* to another, an action which will cause no end of confusion. Since the name *marina* has also been used for a species of *Jaera*, it seems best, in order to maintain a stable nomenclature in the Isopoda, to suppress altogether the severely compromised name *Oniscus marinus* L. This suppression would make it possible to use the names *Idotea balthica* (Pallas), *I. neglecta* Sars, and *Jaera albifrons* [Leach], all of which are well known and widely used names. The suppression of Linnaeus's name *marinus* will therefore have no undesirable consequences. The only drawback is that *Oniscus marinus*, as shown above, is the type-species of the genus *Idotea* J. C. Fabricius, 1798. For this reason we propose that the Commission should use its plenary powers to designate as the type of that genus the species *Cymothoa emarginata* J. C. Fabricius, 1793, which was included by J. C. Fabricius in the original description of his *Idotea*, while at the same time this species is well known and is currently assigned to *Idotea* by all Isopod specialists.

6. This opportunity should also be taken to place the generic name *Jaera* [Leach], [1814] (*Brewster's Edin. Ency.* 7(2) : 434) on the Official List. The name is at present universally adopted for a well-known and widely distributed genus of Isopoda, of which it is, so far as we know, the valid name. At the same time, the specific name *albifrons* [Leach], [1814] (*ibid.* : 434) should be placed on the Official List of Specific Names as the name of the type-species of *Jaera*. It is for this species that O. Fabricius, 1780, wrongly used the specific name *Oniscus marinus*, Linnaeus, 1758, and since, although he did not propose the name as new he has often been cited as its author, it is proposed that the alleged specific name *O. marinus* O. Fabricius, 1780, be placed on the Official Index.

7. The problem of the correct name for the Decapod genus named *Idotea* by Weber, 1795, is rather complicated. The earlier synonymy of the generic name is :

Emerita Gronovius, 1764, *Zoophyl. Gronov.* (2) : 234
Emerita pars Scopoli, 1777, *Introd. Hist. Nat.* : 405
Emerita Meuschen, 1778, *Mus. Gronov.* : 87
Emerita Meuschen, 1781, *Index Zoophyl. Gronov.* : (9)
Idotea Weber, 1795, *Nom. ent.* : 94
Emerita Bosc, 1801–1802, *Hist. nat. Crust.* 1 : 67.

Gronovius (1764) recognised two species in his genus *Emerita*, namely, *E. thorace subcompresso laevi* (No. 1000) and *E. thorace depresso laevi* (No. 1001), both figured by him. The currently used names for these species are *Emerita emerita* (Linnaeus) and *Hippa cubensis* (De Saussure) respectively. Gronovius's work, which is not binominal, is not available in nomenclature and has therefore been rejected in Opinion 89 (1925, *Smithson. misc. Coll.* 73(3) : 321). Both of the publications in which Meuschen (1778 and 1781) used the name *Emerita*, basing himself on Gronovius's 1764 work, have likewise been rejected by the Commission, in Opinions 260 and 261 respectively (1954, *Ops. Decls. Int. Comm. zool. Nomencl.* 5 : 265, 281). Scopoli (1777), in using the name *Emerita*, assigned it to Gronovius as the author. As Scopoli's book is available nomenclatorially, and as he provided a diagnosis for *Emerita* and himself adopted the name, it is available as from his work and date. Unfortunately, he did not cite any nominal species, while his description better fits the genus *Pagurus* J. C. Fabricius, 1775 than Gronovius's genus *Emerita*. Furthermore, Scopoli's reference to a figure of *Pagurus bernhardus* (Linnaeus) published by Swammerdam, 1737 (*Bibl. Nat.* : pl. 11) shows that he included Pagurids in his genus *Emerita*. This genus is therefore evidently of a composite nature, containing not only Gronovius's species 1000 and 1001, but also at least *Pagurus bernhardus* (Linnaeus, 1758). As no nominal species was assigned by Scopoli to his genus *Emerita*, the type-species, according to the Rules, is the first species subsequently assigned to the genus. This species, so far as we can find out, is " *Hippa emeritus* Fab." [=*Cancer emeritus* Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1055], which was placed in the genus by Bosc (1801–1802, *Hist. nat. Crust.* 1 : 67). Bosc also considered Gronovius as the author of the generic name, as is evident from his remark (: 67, 68) : " Gronovius avoit fait, le premier, de ce crabe un nouveau genre, sous le nom d'*Emerita*. Pourquoi Fabricius l'a-t-il changé ? " According to the Rules, *Cancer emeritus* Linnaeus, 1767, is thus the type-species of *Emerita* Scopoli, 1777, even though Scopoli's description does not entirely fit the species. In this way the genus which has hitherto been generally cited either as *Emerita* Gronovius, 1764, or as *Emerita* Meuschen, 1778 (or 1781), must actually be known as *Emerita* Scopoli, 1777. The strict application of the Rules thus validates the current usage of the name *Emerita*, only the author's name and date having to be changed.

8. The original description of *Cancer emeritus* Linnaeus, 1767, the type-species of *Emerita* Scopoli, 1777, runs as follows :

> " C[ancer]. manibus nullis, pedibus utrinque quinque natatoriis.
> *Gron. zooph.* 1000. *t.* 17. *f.* 8, 9. Emerita.
> *Pet. pterigr. t.* 20, *f.* 9
> *Habitat in Mari* Indico."

As already shown by Schmitt, 1935 (*Sci. Surv. Porto Rico Virgin Is.* 15(2) : 211), Linnaeus's species is composite. Petiver's animal, which was collected at Barbados, is probably *Hippa cubensis* (de Saussure, 1857), while the specimen figured by Gronovius originated from the Indian Ocean and is identical with *Hippa asiatica* H. Milne Edwards, 1837. In his text, Gronovius referred to Petiver's pl. 20, fig. 9, and, with some doubt, to Marcgraf's (1648, Piso & Marcgraf's *Hist. nat. Brasil.* (2) : 186) and Jonston's (1650, *Hist. nat. Exang. aquat.* : pl. 9, fig. 14) figures of *Parribacus antarcticus* (Lund, 1793). So far as is known to us, no lectotype has ever been selected for *Cancer emeritus*

Linnaeus, 1767. In order to put the identity of that species beyond dispute, we now select the specimen from " Mari Indico " described by Gronovius (1764, *Zoophyl. Gronov.* (2) : 234) as *Emerita thorace subcompresso laevi* and figured by him on pl. 17, figs. 8, 9. This type-selection is in accordance with Schmitt's (1935) views and makes *Cancer emeritus* L. a senior subjective synonym of *Hippa asiatica* H. Milne Edwards, 1837.

9. During the greater part of the nineteenth century, the generic name *Hippa* J. C. Fabricius, 1787 (*Mant. Ins.* **1** : 329) was incorrectly used for the genus *Emerita* Scopoli, 1777. This practice started with Latreille, 1810 (*Consid. gén. Crust. Arach. Ins.* : 99, 422), who indicated "*Hippa emeritus* Fab." as the type-species of the genus *Hippa* Fabr. This selection is invalid, as *Cancer emeritus* L. is not among the species originally included by Fabricius in *Hippa*. The first valid type-selection for this genus seems to be that by Rathbun, 1900 (*Proc. U.S. nat. Mus.* **22** : 301), who selected *Hippa adactyla* J. C. Fabricius, 1787 (*Mant. Ins.* **1** : 329). It was only after the publication of Rathbun's paper that the names *Hippa* and *Emerita* were used for their proper genera. It seems worth while now to have the generic name *Hippa* J. C. Fabricius, 1787, placed on the Official List.

10. Only two family-group names are involved here, namely, IDOTEIDAE (correction of IDOTEADAE) Samouelle, 1819, *Entom. useful Compendium* : 106 (first correctly spelled by White, 1847, *List Crust. Brit. Mus.* : 93) and HIPPIDAE (correction of HIPPIDES) Latreille, 1825, *Fam. nat. Règne Anim.* : 275 (first correctly spelled by White, *op. cit.* : 57). Both these names should now be placed on the Official List.

11. The concrete proposals that we now submit to the International Commission on Zoological Nomenclature are that it should :

(1) use its plenary powers :
   (a) to suppress the generic name *Idotea* Weber, 1795, for the purposes of both the Law of Priority and the Law of Homonymy ;
   (b) to suppress the specific name *marinus* Linnaeus, 1758, as published in the binomen *Oniscus marinus*, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
   (c) to set aside all designations of type-species for the nominal genus *Idotea* J. C. Fabricius, 1798, made prior to the proposed decision, and having done so ;
   (d) to designate *Cymothoa emarginata* J. C. Fabricius, 1793, to be the type-species of that genus ;

(2) place the following names on the Official List of Generic Names in Zoology :
   (a) *Emerita* Scopoli, 1777 (gender : feminine), type-species, by subsequent monotypy, *Cancer emeritus* Linnaeus, 1767 ;
   (b) *Hippa* J. C. Fabricius, 1787 (gender : feminine), type-species, by selection by Rathbun, 1900, *Hippa adactyla* J. C. Fabricius, 1787 ;
   (c) *Idotea* J. C. Fabricius, 1798 (gender : feminine), type-species, by designation under the plenary powers in (1)(d) above, *Cymothoa emarginata* J. C. Fabricius, 1793 ;

- (d) *Jaera* [Leach], [1814] (gender : feminine), type-species, by monotypy, *Jaera albifrons* [Leach], [1814] ;
- (e) *Saduria* Adams, 1852 (gender : feminine), type-species, by monotypy, *Oniscus entomon* Linnaeus, 1758 ;

(3) place the following specific names on the Official List of Specific Names in Zoology :

- (a) *adactyla* J. C. Fabricius, 1787, as published in the binomen *Hippa adactyla* (type-species of *Hippa* J. C. Fabricius, 1787) ;
- (b) *albifrons* [Leach], [1814], as published in the binomen *Jaera albifrons* (type-species of *Jaera* [Leach], [1814]) ;
- (c) *balthicus* Pallas, 1772, as published in the binomen *Oniscus balthicus* ;
- (d) *emarginata* J. C. Fabricius, 1793, as published in the binomen *Cymothoa emarginata* (type-species of *Idotea* J. C. Fabricius, 1798) ;
- (e) *emeritus* Linnaeus, 1767, as published in the binomen *Cancer emeritus*, and as defined by the lectotype selected in paragraph 8 above (type-species of *Emerita* Scopoli, 1777) ;
- (f) *entomon* Linnaeus, 1758, as published in the binomen *Oniscus entomon* (type-species of *Saduria* Adams, 1852) ;
- (g) *neglecta* Sars, 1897, as published in the binomen *Idothea neglecta* ;

(4) place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology :

- (a) *Emerita* Gronovius, 1764, published in a work rejected for nomenclatorial purposes in Opinion 89 ;
- (b) *Emerita* Meuschen, 1778, published in a work rejected for nomenclatorial purposes in Opinion 260 ;
- (c) *Emerita* Meuschen, 1781, published in a work rejected for nomenclatorial purposes in Opinion 261 ;
- (d) *Idotaea* Dana, 1849 (*Amer. J. Sci.* (2) **8** : 426) an erroneous subsequent spelling of *Idotea* Fabricius, 1798 ;
- (e) *Idotea* Weber, 1795, suppressed under the plenary powers in (1)(a) above ;
- (f) *Idothea* J. C. Fabricius, 1796, a *nomen nudum* ;
- (g) *Idothea* J. C. Fabricius, 1799, an erroneous subsequent spelling of *Idotea* Fabricius, 1798 ;
- (h) *Idothea* Richardson, 1905, an unjustified emendation of *Idotea* Fabricius, 1798 ;
- (i) *Mesidotea* Richardson, 1905, a junior objective synonym of *Saduria* Adams, 1852 ;

(5) place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :

- (a) *marinus* Linnaeus, 1758, as published in the binomen *Oniscus marinus*, suppressed under the plenary powers in (1)(b) above ;
- (b) *marinus* O. Fabricius, 1780, as published in the binomen *Oniscus marinus*, an alleged but non-existent name ;

(6) place the following names on the Official List of Family-Group Names

in Zoology:
- (a) HIPPIDAE (correction of HIPPIDES) Latreille, 1825 (type-genus *Hippa* J. C. Fabricius, 1787);
- (b) IDOTEIDAE (correction of IDOTEADAE) Samouelle, 1819 (type-genus *Idotea* J. C. Fabricius, 1798);

(7) place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:
- (a) HIPPIDES Latreille, 1825 (type-genus *Hippa* J. C. Fabricius, 1787), an incorrect original spelling for HIPPIDAE;
- (b) IDOTEADAE Samouelle, 1819 (type-genus *Idotea* J. C. Fabricius, 1798), an incorrect original spelling for IDOTEIDAE.

COMMENT ON THE PROPOSED ADDITION TO THE OFFICIAL LIST OF THE GENERIC NAME *DICTYOCONUS* BLANCKENHORN, 1900. Z.N.(S.) 316

(See this volume, pages 30–31.)

By A. N. Dusenbury, Jr. (*Creole Petroleum Corporation, Venezuela*)

I am in full agreement with Dr. Donald L. Frizzell's proposal for the addition to the Official List of the generic name *Dictyoconus* (Foraminifera). He is quite correct in stating that Woodring, 1924, was in error in citing *Patellina egyptiensis* as type-species by monotypy and again correct in the assertion that Cushman, 1933, made the first unequivocal designation of the same species as the type-species. However, Cushman in 1928 (Spec. Publ. Cushman Lab. Foram. Res., No. 1, p. 182) made a prior designation, of which Frizzell has omitted mention, in these words: " Geno-holotype, *Patellina aegyptiensis* Chapman ", under the heading: " Genus *Dictyconus* Blanckenhorn, 1900 ".

The meaning attached to the word genoholotype is of great importance in determining whether or not the 1928 designation is valid. According to Frizzell (1933, Amer. Midland Naturalist, vol. 14, no. 6, p. 648–649), the word genoholotype is a synonym of the word genotype, both words indicating the type-species of a genus. Under this definition the 1928 designation would be valid. However, Cushman himself (loc. cit., p. 51) has explained what he means by the word genoholotype in the following sentence: " Wherever the genus is monotypic, . . . , the type-species has been here called a genoholotype." Therefore, when he declares " *Patellina aegyptiensis* " to be " genoholotype ", he is merely repeating Woodring's error in neglecting to note that Blanckenhorn established the genus with two originally included species, hence the 1928 designation by Cushman must be considered invalid. In his 1933 edition Cushman replaced the word genoholotype with the word genotype.

It will be noted that in 1928 Cushman employed the emended form *aegyptiensis* instead of the valid original spelling *egyptiensis*, although in 1933 he corrected this error. The earliest known use of the invalid emended form is by Airaghi, 1904 (*Atti Soc. ital. Sci. nat.* 43: 160, 183). It is suggested that the International Commission place the specific name *aegyptiensis* Airaghi, 1904 (an Invalid Emendation of *egyptiensis* Chapman, 1900), as published in the binomen *Conulites aegyptiensis*, on the Official Index of Rejected and Invalid Specific Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE NOMINAL GENUS *MACROPSIS* LEWIS, 1834, IN ACCORDANCE WITH ACCUSTOMED USE (CLASS INSECTA, ORDER HEMIPTERA). Z.N.(S.) 456

By Wilhelm Wagner (*Hamburg, Germany*)

The nominal genus *Macropsis* Lewis, 1834 (Class Insecta, Order Hemiptera, Suborder Homoptera Auchenorrhyncha) was first described in *Trans. ent. Soc. Lond.* **1** : 49–51, pl. 7, figs. 3, 4. Lewis placed two species in the genus, *Cicada virescens* Fabricius, 1794 (*Ent. syst.* **4** : 46) and *Cicada flavicollis* Linnaeus, 1761 (*Fn. svec.* (ed. 2) : 242), but did not designate a type-species. The generic name is nevertheless available under the Code because it was published before 1931. In 1840, Westwood (*Syn. Gen. brit. Ins.* **2** : 117) selected *Cicada virescens* Fabricius as type-species.

2. The binomen *Cicada virescens* has been applied by authors subsequent to Fabricius in two different senses. The first interpretation was that of Fallén in 1806 (*K. Vetenskaps Akad. nya Handl.* **27** : 33) when he applied the name to the species now known as *Elymana sulphurella* (Zetterstedt, 1828) (*Ins. lapp.* : 297). He was followed by Oshanin, 1906 (*Verz. pal. Hem.* **2** : 174 ; *Thamnotettix sulphurellus* Zett. sp.) and by Ribaut, 1939 (*Bull. Soc. Hist. nat. Toulouse* **73** : 7, 8) who designated *Cicada sulphurella* Zett. as the type-species of his new genus *Solenopyx*, as well as by Flor, 1861 (*Rhynch. Livl.* **2** : 333) and Scott (*Ent. mon. Mag.* **12** : 25).

3. The second interpretation is represented by Germar, 1821 (*Mag. Ent.* **4** : 82) and followed by nearly all subsequent authors, including Lewis, 1834. Flor, 1861 (*Rhynch. Livl.* **2** : 188) and Scott, 1873 (*Ent. mon. Mag.* **10** : 189) also applied the name *virescens* Fabricius to the same species as that to which Germar had applied it ; in other words, they applied the name to two different species. In the literature subsequent to 1875 the name appears only in the sense in which Germar used it.

4. The holotype of *Cicada virescens* Fabricius is deposited in the Kiel Museum. It is recognisable without doubt as a female of *Elymana sulphurella* (Zetterstedt, 1828). It is therefore clear (*a*) that Fallén's interpretation of the species was correct and that the interpretation of Germar which has been generally adopted since 1875 was wrong, and (*b*) that the genus *Macropsis* was based on a misidentified type-species.

5. Under a strict application of the Rules, the name *Macropsis* would have to be transferred to the genus now known as *Elymana* De Long, 1936, and the genus now known as *Macropsis* would have to be given a new name. This procedure would, however, lead to considerable confusion for the following reasons. The genus now known as *Macropsis* contains a very large number of species which occur in all regions north of the Equator as well as in South America and South Africa. The re-naming of this genus would thus affect nearly all faunistic literature. Moreover, the subfamily MACROPSINAE Evans,

1938, is based on this genus. In a large faunistic literature the name *Macropsis* is used for a very definite and well-known concept, whereas under the Rules, the name should be transferred to a genus in quite a different subfamily (*Elymana* De Long). There is one extremely plentiful species belonging to this latter genus (*Elymana sulphurella* Zetterstedt, sp) which is found all over Europe, North Africa, North Asia and North America. The transfer of the name *Macropsis* to this genus would cause serious confusion, and it seems very desirable that the Plenary Powers should be used to avoid this result by designating a type-species for *Macropsis* in harmony with current usage.

6. In the course of a review of the salicicolous *Macropsis* species of North and Central Europe, I found that the specific name " *virescens* Fabricius " (in the sense of Germar) had been used to cover the following species :—*Macropsis prasina* Boheman, 1852, *M. notata* Prohaska, 1923, *M. marginata ossiannilssoni* Wagner, 1950, *M. viridinervis* Wagner, 1950, *M. albae* Wagner, 1950 and *M. infuscata* Sahlberg var. *kaestneri* Wagner, 1941. I found it impossible to establish with certainty which of these forms was the one on which the genus currently known as *Macropsis* was originally based. Lewis's original material is no longer in existence. It is, however, extremely probable that what Lewis described was *Macropsis prasina* Boheman, 1852 (*K. Vetensk.-Akad. Handl.* **1851** : 122). This species is plentiful on *Salix* in England.

7. The type-specimen of *Macropsis prasina* Boheman is preserved in the Riksmuseum at Stockholm. I was able to examine the specimen and to confirm its identity with specimens of the common English species kindly sent to me for examination by Dr. W. E. China (British Museum (Natural History), London). Lewis's description was found to agree exactly with the characters of the type-specimen of *M. prasina.*

8. The name *Cicada virescens* Fabricius, 1794 is a junior primary homonym of *Cicada virescens* Gmelin, 1790 (*Syst. Nat.* ed. 13, **1**(4) : 2111) and is therefore not an available name. The description of Gmelin reads : " *virescens*.266. C. ex flavo virescens. Mus. Lesk. p. 116, n.34. Habitat in Europa " (I am indebted to Professor H. Sachtleben, Deutsches entomologisches Institut, Berlin, for the above quotation). This name was overlooked until 1936, when Oman (*Bull. U.S. nat. Mus.* **85** : 352) supposed that *Cicada virescens* might be a species of *Macropsis.* But the description of Gmelin can be applied to every yellowish-green cicada of Europe. The type of *Cicada virescens* Gmelin is not to be found (part of the Leske collection is conserved in the museum at Dublin, but this does not include any insects) and it is impossible to determine the species which Gmelin described. It is therefore proposed that Gmelin's specific name should be suppressed under the Plenary Powers for the purposes of the Law of Priority but not for those of the Law of Homonymy so as to reject the same specific name as used by Fabricius.

9. The type-species of the genus *Elymana* De Long, 1936 (*Ohio J. Sci.* **36** : 218) is, by original designation, *Thamnotettix inornatus* Van Duzee, 1892 (*Trans. Amer. ent. Soc.* **19**(12) : 303). Beirne, 1956 (*Leafhoppers Canada and Alaska* : 90) has established that this species is the same as *Cicadula sulphurella* Zetterstedt, 1828, and therefore as *Cicada virescens* Fabricius, 1794, *non* Gmelin, 1790. If the proposal made above to suppress *Cicada virescens*

Gmelin is accepted, then *Cicada virescens* Fabricius will be automatically rejected and *Cicadula sulphurella* Zetterstedt, 1828, will become the oldest available name for the type-species of *Elymana* De Long, 1936. This will be in accord with all current usage, for Ribaut (1952, *Faune de France* **57** : 126) himself recognised that his genus *Solenopyx* (see paragraph 2 above) is a synonym of *Elymana*.

10. The genus *Macropsis* is referred by all current authors to the subfamily MACROPSINAE Evans, 1938 (as MACROPSIDAE) and that family-group name should be placed on the Official List. *Elymana* is variously referred to the subfamily EUSCELINAE or to the subfamily DELTOCEPHALINAE, so that no family-group name problem arises in the present connection so far as this generic name is concerned.

11. I accordingly ask the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers :
  (a) to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy the specific name *virescens* Gmelin, 1790, as published in the binomen *Cicada virescens* ;
  (b) to set aside all designations of a type-species for the nominal genus *Macropsis* Lewis, 1834, made prior to the ruling now asked for, and having done so ;
  (c) to designate *Jassus prasina* Boheman, 1852, to be the type-species of *Macropsis* Lewis, 1834 ;
(2) to place the following names on the Official List of Generic Names in Zoology :
  (a) *Macropsis* Lewis, 1834 (gender : feminine), type-species, by designation under the plenary powers in (1)(c) above, *Jassus prasina* Boheman, 1852 ;
  (b) *Elymana* De Long, 1936 (gender : feminine), type-species, by original designation, *Thamnotettix inornatus* Van Duzee, 1892 ;
(3) to place the following names on the Official Index of Rejected and Invalid Specific Names in Zoology :
  (a) *virescens* Gmelin, 1790, as published in the binomen *Cicada virescens* (suppressed under the plenary powers in (1)(a) above for the purposes of the Law of Priority but not for those of the Law of Homonymy) ;
  (b) *virescens* Fabricius, 1794, as published in the binomen *Cicada virescens* (a junior primary homonym of *Cicada virescens* Gmelin, 1790) ;
(4) to place the following names on the Official List of Specific Names in Zoology :
  (a) *prasina* Boheman, 1852, as published in the binomen *Jassus prasina* (type-species, by designation under the plenary powers in (1)(c) above, of *Macropsis* Lewis, 1834) ;
  (b) *sulphurella* Zetterstedt, 1828, as published in the binomen *Cicadula sulphurella* (the oldest available name, through the rejection in (3)(b) above of the specific name *virescens* Fabricius, 1794,

as published in the binomen *Cicada virescens*, for the type-species of *Elymana* De Long, 1936);

(5) to place the family-name MACROPSIDAE Evans, 1938 (type-genus *Macropsis* Lewis, 1834) on the Official List of Family-Group Names in Zoology.

COMMENTS ON THE REQUEST FOR A RULING ON THE INTERPRETATION OF THE NOMINAL SPECIES *UNIO PHILLIPSII* WILLIAMSON, 1836. Z.N.(S.) 1398

(See this volume, pages 61–64.)

By A. Pastiels (*Centre National de Géologie Houillère, Brussels*)

Une longue expérience pratique du genre *Anthraconauta* m'a convaincu du caractère judicieux de la requète introduite par le Docteur J. Weir que j'appuie sans réserves.

By P. Pruvost (*Laboratoire de Géologie a la Sorbonne, Paris*)

Referring to the paper published by Prof. J. Weir (*Bull. zool. Nomencl.* **17** : 61), I beg to inform you that I agree with the case presented by him and that I support his request.

By T. Neville George (*University of Glasgow*)

As a student of Carboniferous geology, and as one who has gone into the matter with Dr. Weir, I write to say that I think the proposals put forward by Dr. Weir are urgently desirable, both for palaeontologists and stratigraphers, and that the bases on which he makes his case seem to me to be eminently reasonable and appropriate. It would be disastrous in terms of common use, and a source of endless confusion, if what he proposes is not accepted, and if the specific name should continue to be used with an uncertainty that would make its application liable to endless misconstruction.

By E. Paproth (*Geologisches Landesamt, Nordrhein-Westfalen, Germany*)

Der Name *Anthroconauta phillipsii* (Williamson) ist im Karbon des Ruhr-Gebietes stets im gleichen Sinne gebraucht worden, wie in England (seit 1893). Man hat sich also Hinds (1893; und 1895, *Palaeontogr. Soc.*, Taf, XVI) und Dix' and Trueman's (1931, *Quart. J. Geol. Soc. Lond.* **87**) Interpretation angeschlossen.

Herrn J. Weir's Antrag bei der International Commission on Zoological Nomenclature› Punkt 1–3 (*Bull. zool. Nomencl.* **17** : 64) erscheint mir völlig gerechtfertigt, und ich erlaube mir deshalb, ihn zu unterstützen.

PROPOSAL TO PLACE THE GENERIC NAMES *KORYNETES* HERBST, (1792), AND *NECROBIA* OLIVIER, 1795, ON THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY (CLASS INSECTA, ORDER COLEOPTERA). Z.N.(S).471

By H. Boschma and the late K. W. Dammerman (*Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands*)

The generic name *Korynetes* Herbst, (1792), *Käfer* **4** : 148, was emended to *Corynetes* by Paykull, 1798 (*Fauna Suecica* **1** : 274), and it is the latter form of the name that has been almost universally used ever since. The emendation was not justified under existing Rules, but because of its wide and long-continued acceptance, Dammerman (January 1950, *Entom. Ber.* **13**(295) : 13) proposed the validation of the spelling *Corynetes*. On the other hand Corporaal (1949, *Entom. Ber.* **12**(292) : 422) had proposed that the name be placed on the Official List of Generic Names in Zoology in the spelling *Korynetes*, and later used this spelling in his Catalogue of the CLERIDAE (December 1950, *Coleopt. Cat.* Suppl. (23) ed. 2 : 307). The same spelling is also used by Kloet & Hincks, 1945, in *A Check-List of British Insects* : 180. Corporaal's catalogue in particular will serve as the basis for nomenclature in the family, and it is thought advisable now to seek the stabilization of the name *Korynetes* in its original spelling.

2. Herbst included four species in *Korynetes*. The first of these was *Dermestes violaceus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 356, of which *Clerus coeruleus* De Geer, 1775, (*Mém. Ins.* **5** : 164) was cited as a synonym. Since no type-species was originally designated or indicated, the subsequent designation of *Clerus coeruleus* De Geer, 1775, as type-species by Lacordaire, 1857 (*Gen. Coleopt.* **4** : 489) was valid. The same species becomes automatically the type-species of *Corynetes* Paykull, 1798, since this, as an emendation of *Korynetes*, is a junior objective synonym of the latter under the Rules.

3. The genus *Necrobia* was established by Olivier, 1795 (*Entomologie*, Coleopt. **4**, No. 76 bis) to include three of the species placed in *Korynetes* by Herbst in 1792. *Dermestes violaceus* Linnaeus, 1758, was the first of these. In 1810, Latreille (*Consid. gén. Anim. Crust. Arachn. Ins.* : 427) designated *Corynetes violaceus* Fabricius (1801, *Syst. Eleuth.* **1** : 285) as the type-species of *Necrobia*, but this was a subsequent usage by Fabricius of the specific name *violaceus* Linnaeus, 1758 (*Dermestes*). Under the Rules, therefore, *Dermestes violaceus* Linnaeus, 1758, is the nominal species that is the type-species of *Necrobia*.

4. The two nominal species *Dermestes violaceus* Linnaeus, 1758, and *Clerus coeruleus* are thus the respective type-species of distinct nominal genera, notwithstanding that they were regarded as conspecific by Herbst in 1792. The nominal genera concerned (*Korynetes* Herbst, (1792) and *Necrobia* Olivier, 1795) are now, and have long universally been, considered taxonomically different, and it appears to us that the strict application of the Rules would in fact

contribute most to stability and universality of nomenclature. Attempts by, e.g., Jacq. du Val, 1861 (*Gen. Col. d'Europe* 3 : 201, footnote), Crotch, 1870 (*Trans. roy. ent. Soc.* London, **1870** : 48), and Bergroth, 1884 (*Berl. entom. Zeitschr.* **28** : 229) to regard *Dermestes violaceus* Linnaeus as the type-species of *Korynetes* have been justly criticized by Corporaal (*op. cit.*, 1949) on the ground that such action menaces stability ; it should also be noted that they are directly contrary to the Rules.

5. The taxonomic genera *Korynetes* and *Necrobia* are both referred to the family CLERIDAE. Neither of them has ever been taken as the basis of a family-group name.

6. We therefore ask the International Commission on Zoological Nomenclature :

(1) to place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Korynetes* Herbst, (1792) (gender : masculine), type-species, by subsequent designation by Lacordaire, 1857, *Clerus coeruleus* De Geer, 1775 ;
  (b) *Necrobia* Olivier, 1795 (gender : feminine), type-species, by subsequent designation by Latreille, 1810, *Dermestes violaceus* Linnaeus, 1758 ;

(2) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *coeruleus* De Geer, 1775, as published in the binomen *Clerus coeruleus* (type-species of *Korynetes* Herbst, (1792)) ;
  (b) *violaceus* Linnaeus, 1758, as published in the binomen *Dermestes violaceus* (type-species of *Necrobia* Olivier, 1795) ;

(3) to place the generic name *Corynetes* Paykull, 1798 (an unjustified emendation of *Korynetes* Herbst, (1792)), on the Official Index of Rejected and Invalid Generic Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAME *PROMECOPSIS* DUMÉRIL, 1806 (CLASS INSECTA, ORDER HEMIPTERA). Z.N.(S.) 483

By Wilhelm Wagner (*Hamburg, Germany*)

The object of the present application is to remove a serious threat to stability in nomenclature at the generic level in the subfamily TYPHLOCYBINAE presented by the continued availability of the generic name *Promecopsis* Duméril, 1806 (*Zool. anal.* : 167).

2. The genus *Promecopsis* was established by Duméril (*loc. cit.*) without any included species " correspondant aux cicadelles, qui n'ont pas de petits yeux lisses ". The generic name is nevertheless available because it was published before 1931, with a description and duly latinized. The author in question consistently applied the principles of binominal nomenclature in the work in which the generic name was first published, and the name is not a junior homonym of any earlier generic name consisting of the same word. It is thus open to any author to introduce this name into usage by citing any given species as its type-species, whether this be the type-species of a nominal genus in universal use since its publication later than 1806 or some species generally referred to such a nominal genus. So far as is known, no nominal species has yet been referred to the nominal genus *Promecopsis* Duméril, 1806.

3. The subfamily TYPHLOCYBINAE Kirschbaum, 1868 (*Jahrb. nassau. Ver. Naturk.* **21/22** : 16) includes a number of genera without ocelli (" qui n'ont pas de petits yeux lisses "), so that it would be impossible to define the genus *Promecopsis* by reference to any known species agreeing with the generic description without disturbing, objectively or subjectively, the stability of current nomenclature. It is therefore desirable that the potential threat to this stability presented by this generic name be eliminated in the most economical manner.

4. The nominal type-genus of the subfamily TYPHLOCYBINAE is *Typhlocyba* Germar, 1833 (*Rev. Ent.* Silbermann **1** : 180). This genus was established with the following originally included species : " *Cicada aurata*, *Urticae*, *vittata*, *picta*, *Quercus* Fab., etc.". The first author who designated a type-species for the genus was Westwood (1840, *Syn. Gen. brit. Ins.* **2** : 409), and the species so selected was *Cicada ulmi* Linnaeus, 1758. This designation is invalid because the species selected was not one of those originally included in the genus. Woodworth, 1899 (*Psyche* **5** : 211) selected *Cicada quercus* Fabricius as the type-species of *Typhlocyba* and this is, so far as is known, the first valid designation of a type-species for this genus. The original reference to this specific name is : *Cicada quercus* Fabricius, 1777, *Gen. Ins.*, Chilonii : 298, and it is the oldest available name for the species in question. It is proposed that the generic name *Typhlocyba* Germar, 1833, and the name of its type-species, be placed on the Official Lists at the same time as the generic name *Promecopsis* Duméril is suppressed.

5. I accordingly ask the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers to suppress the generic name *Promecopsis* Duméril, 1806, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place the generic name *Typhlocyba* Germar, 1833 (gender : feminine), type-species, by selection by Woodworth, 1899, *Cicada quercus* Fabricius, 1777, on the Official List of Generic Names in Zoology (Class Insecta, Order Hemiptera) ;

(3) to place the generic name *Promecopsis* Duméril, 1806, as suppressed under the plenary powers in (1) above, on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(4) to place the specific name *quercus* Fabricius, 1777, as published in the binomen *Cicada quercus* (type-species, by designation by Woodworth, 1899, of *Typhlocyba* Germar, 1833) on the Official List of Specific Names in Zoology ;

(5) to place the family-name TYPHLOCYBIDAE Kirschbaum, 1868 (type-genus *Typhlocyba* Germar, 1833) on the Official List of Family-Group Names in Zoology.

COMMENTS ON THE PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE NOMINAL GENUS *APHROPHORA* GERMAR, 1821. Z.N.(S.) 478.

(See this volume, pages 39–42.)

By W. Wagner (*Hamburg, Germany*)

Ich halte die Stellungnahme Dr. Ossiannilsson's zur Nomenclatur der Gattungen *Aphrophora* Germar, *Philaenus* Stal und *Ptyelus* Lep. & Serv. für sachlich richtig.

Eine Entscheidung der Kommission für Zoologische Nomenclatur über den Gebrauch des Artnamens *Philaenus spumarius* Lin. erscheint mir ausserdem dringend notwendig, damit der Gebrauch dieses Namens einheitlich werde. *Philaenus spumarius* Lin. ist eine der häufigsten Zikadenarten der palaearktischen und der nearktischen Region. Sie wird in sehr vielen Lehrbüchern und populären Schriften genannt.

Der Gebrauch des Namens kann meiner Meinung nach nur in dem von Dr. Ossiannilsson vorgeschlagenen Sinn geregelt werden. Diese Regelung würde dem in Europa üblichen Brauch entsprechen.

By W. J. Le Quesne (*Chesham, Bucks, England*)

Dr. Ossiannilsson has sent me a copy of *Bull. zool. Nomencl.* **17** : Parts 1/2, concerning the nominal genus *Aphrophora* Germar, 1821, After study of his proposals, I consider them to be reasonable and wish to agree with the action which he proposes.

PROPOSED ADDITION OF THE GENERIC NAME *JASUS* PARKER, 1883, TO THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY (CLASS CRUSTACEA, ORDER DECAPODA). Z.N.(S.) 620.

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Histörie, Leiden, Netherlands*)

The present application deals with the generic name *Jasus* Parker, 1883, which is commonly used to indicate a well-known genus of economically important spiny lobsters. The name was originally thought to be invalid as a junior homonym of *Jasus* Megerle, 1804, but this view has since been found to be incorrect. The International Commission is now asked to place the generic name *Jasus* Parker, 1883, on the Official List of Generic Names.

2. The following are the original references to the generic names dealt with in the present application :—

Jasus Parker, 1883 (*Nature* (London), **29** : 190), type-species, by present selection, *Palinurus lalandei* (emend. of *lalandii*) H. Milne Edwards, 1837 (*Hist. nat. Crust.* **2** : 293) ;

Iassus Fabricius, 1803 (*Syst. Rhyng.* : 85), type-species, by selection by Fallén, 1826, *Cicada lanio* Linnaeus, 1761 (*Fauna suec.* : 892) ;

Jasus Megerle, 1804 (*Cat. Ins.* **4** : [12]), an erroneous subsequent spelling for *Iassus* Fabricius, 1803 ;

Jassus Fallén, 1806 (*K. svensk. Vetensk.-Akad. nya Handl.* **27** : 115), an erroneous subsequent spelling for *Iassus* Fabricius, 1803 ;

Iasus Balss, 1913 (*Denskschr. med.-naturw. Ges. Jena* **17** : 108), an erroneous subsequent spelling for *Jasus* Parker, 1883 ;

Palinostus Bate, 1888 (*Rep. Voy. Challenger*, Zool. **24** : 56, 76, 85), type-species, by present selection, *Palinurus lalandei* (emend. of *lalandii*) H. Milne Edwards, 1837 ;

Palinosytus Bate, 1888 (*ibid.* : ix, xxx, lxxv, 937), a correct original spelling of *Palinostus* Bate, 1888.

3. The genus to which Parker in 1883 gave the name *Jasus* contains but two species, which inhabit the temperate region of the southern hemisphere (S. Africa, St. Paul and Amsterdam Islands, S.E. Australia, Tasmania, New Zealand, Juan Fernandez and Tristan da Cunha). Notwithstanding the small number of species and the restricted range of distribution, this genus is highly important since both species are of a large size, are edible, and are very abundant in the localities where they occur, so that they form the subject of economically highly important fisheries. The Union of South Africa and Southwest Africa are by far the largest producers of spiny lobsters in the world. As shown by Chace & Dumont, 1949 (*Commerc. Fish. Rev.* Washington, **11**(5) : 5), these two countries alone produced in 1947 not less than 25,000,000 pounds of the lobster *Jasus lalandei* (H. Milne Edwards), while Australia and New Zealand produced around that time about 4.5 million pounds of *Jasus* specimens annually. *Jasus* is also fished for commercial purposes off Juan Fernandez. Naturally the non-taxonomic literature concerning these spiny lobsters is

extensive and it is desirable that the generally accepted generic name of these animals should be placed on the Official List.

4. Only two names have ever been proposed for this genus of spiny lobsters. *Jasus* Parker, 1883, is the oldest and is generally accepted. The other name is *Palinostus* Bate, 1888, which was emended by Bate on p. ix of the Introduction to his report to *Palinosytus* because he thought that *Palinostus* too much resembled the generic name *Palinustus* A. Milne Edwards, 1880 (*Bull. Mus. comp. Zool. Harvard* **8** : 66), given to another genus of spiny lobsters. That Bate was right in this supposition is shown by the fact that Rathbun, 1910 (*Proc. U.S. nat. Mus.* **38** : 603) in error used A. Milne Edwards's name for the present genus.

5. *Palinostus* is first mentioned on page 56 of Bate's report, but without sufficient data to make the name available. On page 76, Bate discusses the morphological differences between *lalandei* and other species referred at that time to the genus *Palinurus*, and says : " It therefore appears that *Palinurus lalandii* should form a separate genus (*Palinostus*) . . . ". By thus defining the characters of the genus, and by referring a single species to it, Bate not only established the nominal genus, but indicated its type-species by monotypy, at the same time rendering *Palinostus* a junior objective synonym of *Jasus* Parker, 1883. Later in the same work (: 85) he referred further species to the genus. *Palinosytus*, as a replacement name for *Palinostus*, also falls indirectly as a junior synonym of *Jasus*, but Mr. Melville (when editing this paper as Assistant Secretary to the Commission) and I have been unable to agree on the technical status of *Palinosytus*. In my view, it should be regarded as a correct original spelling of *Palinostus*, which in turn, having been rejected by Bate in the original publication, should be regarded as an incorrect original spelling without status in nomenclature. In Mr. Melville's view, since *Palinostus* was not subject to automatic correction for any reason, and was not a homonym, Bate had no valid cause to alter it, and *Palinosytus* should be regarded as an unjustified emendation of *Palinostus*. The point is of academic interest only, but the Commission is asked to specify whether the invalidity of *Palinosytus* is due to its being an incorrect original spelling or an unjustified emendation.

6. *Palinostus* has been used since its original publication by two authors only, namely, Lenz, 1902 (*Zool. Jahrb.* Jena, Suppl. **5** : 736) and Porter, 1905 (*Rev. chil. Hist. nat.* **9** : 34), and *Palinosytus* but once, by Stebbing, 1893 (*Hist. Crust.* : 196). Both Lenz and Stebbing, however, abandoned these names in later publications in favour of *Jasus*. This latter name has become firmly established in taxonomic and non-taxonomic literature concerning these animals, and I know of no author who, after the publication of Gruvel's important monograph of the PALINURIDAE in 1911 (*Ann. Inst. Océanogr. Monaco* **3**) did not follow this author in accepting the name *Jasus* Parker for the present genus.

7. As has already been stated in paragraph 1 above, *Jasus* Parker was thought to be invalid as a junior homonym of *Jasus* Megerle, 1804. The *Catalogus Insectorum* was not available for examination by me, nor could a copy be found in any library in London. However, Professor E. M. Hering very kindly examined a copy of the catalogue in the Library of the Deutsches Entomologisches Institut, Berlin-Friedrichshagen, and has informed me that

Jasus Megerle is merely an erroneous subsequent spelling of *Iassus* Fabricius, 1803, and as such has no status in nomenclature. I am very grateful to Professor Hering for the trouble he took to trace a copy of the book. Dr. H. C. Blöte, curator of insects at the Rijksmuseum van Natuurlijke Historie, Leiden, who is himself a specialist of the Hemiptera Homoptera, of which *Iassus* Fabricius forms part, was so kind as to inform me that the name *Jasus* Megerle is not at present used at all and that it is doubtful whether it has ever been used except by its original author. It is however necessary in the present connection to take steps to stabilise the valid generic name for the taxon represented by that name, and here I gratefully acknowledge the help of Dr. R. G. Fennah (Commonwealth Institute of Entomology, London).

8. As indicated in the preceding paragraph, the valid name for the Hemipteran genus in question is *Iassus* Fabricius, 1803 (type-species, by selection by Fallén, 1826, *Hem. suec. Cicad.* : 58, *Cicada lanio* Linnaeus, 1761, *Fauna suec.* : 892). This, which was one of the species originally included in the genus, was attributed by Fallén to Fabricius, but the latter author not only quoted the Linnean description, but also referred to " Syst. Nat. 2, p. 710, no. 37 " (i.e. ed. 12, tom. 1, pt.2), so that there is no doubt that " *Iassus lanio* Fabricius " is identical with *Cicada lanio* Linnaeus, 1761. The specific name is the oldest available for the taxonomic species concerned.

9. The generic name was spelt " *Jassus* " not only by Fallén (1806, 1826) but also by Germar (1817, *Reise nach Dalmatien und in das Gebiet von Ragusa* : 281), without any attempt to justify the change, and it is clear that the name has no status in nomenclature. After 140 years of usage of *Jassus*, *Iassus* has in very recent times come into use among taxonomists and should be regarded as the only correct form of the name so long as the letters " I " and " J " are not regarded as interchangeable.

10. The generic name " *Jassus* " was taken as the basis of the family name incorrectly spelt " JASSIDES " by Amyot & Serville, 1843 (*Hemipt.* : 581). This name, which was long ago corrected to JASSIDAE is currently regarded as a subfamily of the family CICADELLIDAE and is spelt IASSINAE.

11. In the original description of the genus *Jasus* Parker, 1883, four species are mentioned by name : *Palinurus lalandii* [sic] H. Milne Edwards, 1837, *P. edwardsii* Hutton, 1875, *P. hügelii* Heller, 1862, and *P. tumidus* Kirk, 1880. No type-species was designated or indicated by Parker, and as far as is known to me, no subsequent author has selected a type-species. All four species mentioned by Parker are still included in the genus *Jasus*, but the last two are considered synonymous with *Jasus verreauxii* (H. Milne Edwards, 1851), while the second is regard as a subspecies of *Jasus lalandei*. *Palinurus lalandei* (emend. of *lalandii*) H. Milne Edwards, 1837, is now selected as the type-species of *Jasus* Parker, 1883.

12. The specific name of this species was originally spelt *Lalandii* by H. Milne Edwards. From the French equivalent " Langouste de Lalande ", cited immediately before the Latin name, it is evident that the species was dedicated to P. A. de la Lande, a preparator for Etienne Geoffroy St. Hilaire, who was sent by the Paris Museum to make collections in S. Africa in 1818–1821. The specific name should therefore have been correctly spelt *lalandei*, a spelling

which is adopted by several subsequent authors (for the first time by Stimpson, 1860, *Proc. Acad. nat. Sci. Philad.* **1860** : 24) including Gruvel, 1911 (*Ann. Inst. Océanogr. Monaco* 3(4) : 10) in his important monograph of the PALINURIDAE. In carcinological literature as a whole, however, and especially in the older publications, the ending *-ii* prevails over *-ei* by about 40 to 10. The Commission is now asked to rule that *lalandei* is the correct form of the name and to place it on the Official List with this spelling.

13. As the genus *Jasus* is currently referred to the family PALINURIDAE (already placed on the Official List in Opinion 519) no family-group names are involved in the carcinological side of the present case.

14. I therefore ask the International Commission on Zoological Nomenclature:

(1) to place the following generic names on the Official List of Generic Names in Zoology:
  (a) *Iassus* Fabricius, 1803 (gender: masculine), type-species, by selection by Fallén, 1826, *Cicada lanio* Linnaeus, 1761 (Class Insecta, Order Hemiptera);
  (b) *Jasus* Parker, 1883 (gender: masculine), type-species by present selection, *Palinurus lalandei* (emend. of *lalandii*) H. Milne Edwards, 1837 (Class Crustacea, Order Decapoda);
(2) to place the following specific names on the Official List of Specific Names in Zoology:
  (a) *lanio* Linnaeus, 1761, as published in the binomen *Cicada lanio* type-species of *Iassus* Fabricius, 1803);
  (b) *lalandei* (emend. of *lalandii*) H. Milne Edwards, 1837, as published in the binomen *Palinurus lalandii* (type-species of *Jasus* Parker, 1883);
(3) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
  (a) *Jasus* Megerle, 1804 (an erroneous subsequent spelling of *Iassus* Fabricius, 1803);
  (b) *Jassus* Fallén, 1806 (an erroneous subsequent spelling of *Iassus* Fabricius, 1806);
  (c) *Iasus* Balss, 1913 (an erroneous subsequent spelling of *Jasus* Parker, 1883);
  (d) *Palinostus* Bate, 1888 (a junior objective synonym of *Jasus* Parker, 1883);
  (e) *Palinosytus* Bate, 1888 (an incorrect original spelling or an unjustified emendation of *Palinostus* Bate, 1888);
(4) to place *lalandii* H. Milne Edwards, 1837, as published in the binomen *Palinurus lalandii* (an incorrect original spelling for *lalandei*) on the Official Index of Rejected and Invalid Specific Names in Zoology;
(5) to place IASSINAE (correction of JASSIDES) Amyot & Serville, 1843 (type-genus: *Iassus* Fabricius, 1803) on the Official List of Family-Group Names in Zoology;
(6) to place JASSIDES Amyot & Serville, 1843 (type-genus: *Iassus* Fabricius, 1803) (an Invalid Original Spelling for IASSINAE) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE SPECIFIC NAME *DENTIPES* GUÉRIN, 1832, AS PUBLISHED IN THE BINOMEN *ALPHEUS DENTIPES* (CLASS CRUSTACEA, ORDER DECAPODA). Z.N.(S.) 643

By L. B. Holthuis
(*Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands*)

The object of the present application is to protect the currently used name of a well-known species of Caridean shrimps from being displaced by a little-used subjective synonym published sixteen years earlier. The facts are set out below.

2. As I pointed out in a paper on the West African Caridean shrimps (Holthuis, 1951, *Atlantide Rep.* **2** : 71, 72), *Nika variegata* Risso, 1816 (*Hist. nat. Crust. Nice* : 86) is identical with *Alpheus dentipes* Guérin, 1832 (*Exped. sci. Morée*, Zool. **2** : 39). As the name given by Risso to this species was published long before that given by Guérin, the latter is invalid, and the correct name of the species is *Alpheus variegatus* (Risso). This change is, however, undesirable for the reasons given below.

3. After having described the species in 1816 as *Nika variegata*, Risso placed it in 1826 (*Hist. nat. Europ. mérid.* **5** : 78) in the genus *Hippolyte* [Leach], [1814] (which was spelled *Hippolytes* by Risso). Later authors cited the species as *Hippolyte* or *Nika variegata*, but did not recognise its true identity. Coutière, 1899 (*Ann. Sci. nat. Zool.* (8) **9** : 9) thought Risso's species to be identical with *Athanas nitescens* (Leach) and I was of the same opinion in 1947 (*Siboga Exped.* **39**(a8) : 24, 25). Risso's description is very poor and his figure is even worse. This has obviously been the reason why the identity of the species was not recognised before 1951.

4. The specific name *dentipes* Guérin has been used for the present species by the majority of authors (at least 55 authors are known to have employed this name) and it is firmly established in carcinological literature. As far as I can ascertain, no other specific name has been used to indicate this species since 1900.

5. This species is currently referred to the genus *Alpheus* Fabricius, 1798. All aspects of the nomenclature of this name were dealt with by the Commission in Opinion 334. The opportunity may be taken, however, to deal with erroneous subsequent spellings of the generic name *Hippolyte* [Leach], [1814] which were overlooked when that generic name was placed on the Official List in Opinion 470.

6. The substitution of the practically unknown and long misunderstood specific name *variegatus* Risso for the well-known specific name *dentipes* Guérin would greatly upset the currently stable nomenclature in this group of animals. For this reason it seems best to suppress the former in order to conserve the latter. I therefore ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy the specific name *variegata* Risso, 1816, as published in the binomen *Nika Variegata* [*sic*], in order to validate the specific name *dentipes* Guérin, as published in the binomen *Alpheus dentipes*;

(2) to place the specific name *variegata* Risso, 1816, as published in the binomen *Nika Variegata* [*sic*], suppressed under the plenary powers in (1) above, on the Official Index of Rejected and Invalid Specific Names in Zoology;

(3) to place the specific name *dentipes* Guérin, 1832, as published in the binomen *Alpheus dentipes*, validated under the plenary powers in (1) above, on the Official List of Specific Names in Zoology;

(4) to place the following erroneous subsequent spellings of *Hippolyte*, [Leach], [1814] on the Official Index of Rejected and Invalid Generic Names in Zoology: *Hyppolyte* Leach, 1815, *Hippolytes* Risso, 1826, *Hippolytus* Guérin, 1832, *Hippolite* J. C. Ross, 1835, *Hippolyta* Burmeister, 1837, *Hippolithe* Brullé, 1839, *Hyppolite* Veranyi, 1846 *Hypolyte* Newman, 1898, *Hyppolytte* Valdés Ragués, 1909, *Ippolyte* Magri, 1911, *Hyppolythe* Borcea, 1934.

COMMENT ON THE PROPOSALS RELATING TO THE GENERIC NAMES *ISCHNOPODA* STEPHENS, 1835 (Z.N.(S.) 244 AND *BOLITOCHARA* MANNERHEIM, 1831 Z.N.(S.) 243.

(See this volume, pages 69–75.)

By E. C. Pelham-Clinton (*Moredun Institute, Edinburgh*)

I am in complete agreement with all the proposals put forward by Mr. C. E. Tottenham (*Bull. zool. Nomencl.* **17** : 69–75) for stabilising these genera in accordance with current usage. In the case of *Ischnopoda* Stephens the only possible alternative course would be particularly unfortunate in its effects. The question of the separation of such subgenera as *Acrotona* Thomson from *Atheta* Thomson is likely to remain a matter of opinion for a very long time : were *Ischnopoda* to replace *Acrotona* the valid name for the very large genus *Atheta* would depend entirely on this fluctuating opinion—an extremely undesirable situation. Mr. Tottenham's simple solution of this difficulty thus deserves the very strongest support.

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE GENERIC NAME *PARAPENAEUS* S. I. SMITH, 1885, AND TO INTERPRET THE NOMINAL SPECIES *PENEUS MEMBRANACEUS* RISSO, 1816 (CLASS CRUSTACEA, ORDER DECAPODA). Z.N.(S.) 645

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

The purpose of the present application is to secure a valid basis for the use of the currently accepted name for the well-known and economically important shrimp almost universally known by the name *Parapenaeus longirostris* (Lucas, 1846). To secure this end the Commission will need to use its Plenary Powers in two directions. First, it will need to validate the generic name *Parapenaeus* Smith, S.I., 1885, by suppressing the older but totally unknown and never used name *Parapenaeus* Claus, 1876. Second, it will be necessary, in order to place in an unassailable position the specific name *longirostris* Lucas, 1846, as published in the binomen *Peneus longirostris*, for the Commission both to give directions as to the interpretation of the nominal species *Peneus membranaceus* Risso, 1816 and to suppress a specific name of older date which is a senior subjective synonym of *longirostris* Lucas.

2. In 1885, S. I. Smith proposed the new generic name *Parapenaeus* for a genus of shrimps of which *Peneus longirostris* Lucas, 1846, is the type. This generic name has almost universally been adopted and at present is firmly entrenched in scientific and non-scientific carcinological literature. *Parapenaeus longirostris* (Lucas) is a species which is fished for on a very large scale in the deeper water of the Mediterranean and is of considerable economic importance ; in fishery literature concerning this species the generic name *Parapenaeus* is practically always adopted. As far as is known to me only one other generic name has been proposed for the genus in question, namely, *Neopenaeopsis* Bouvier, 1905 (*C. R. Acad. Sci. Paris* **141** : 747). This latter name, however, in 1908 (*Bull. Inst. océanogr.* Monaco **119** : 8) was synonymised by Bouvier with *Parapenaeus*, and has not been used since.

3. The name *Parapenaeus* S. I. Smith, 1885, is invalidated by the older generic name *Parapenaeus* Claus, 1876. In his book " Untersuchungen zur Erforschung der genealogischen Grundlage des Crustaceen-Systems ", Claus, 1876, mentions in a foot-note on p. 46 " *Parapenaeus* n. gen.". Of this new genus Claus gives only a few details of the maxilla and the first maxilliped, and does not even mention any species as belonging to it. It is therefore not possible to ascertain the identity of Claus's new genus. The name *Parapenaeus* has been published by Claus in such an obscure place, that it is not even mentioned in Neave's *Nomenclator Zoologicus*. Since Claus mentions some characters of his new genus, the name *Parapenaeus* Claus cannot be considered a *nomen nudum*, and being an older homonym of *Parapenaeus* S. I. Smith, it invalidates the latter name.

4. The suppression of *Parapenaeus* Claus, 1876, seems to be perfectly

justified, as the identity of Claus's genus is not known ; the name *Parapenaeus* Claus has never been used, except by its original author ; and the suppression of this name makes the well-known and generally adopted generic name *Parapenaeus* Smith, 1885, an available name.

5. The original description of the type-species of *Parapenaeus* Smith, *Peneus longirostris* Lucas, 1846 (*Explor. sci. Algérie*, Crust. : 46), is very clear and the beautiful illustration accompanying the text leaves not the least doubt as to the identity of Lucas's species. Under a strict application of the Rules, however, this name is invalid, since it is a junior synonym of one, or possibly two, older names.

6. Some authors identified *Peneus longirostris* Lucas, 1846, with *Peneus Membranaceus* Risso, 1816 (*Hist. nat. Crust. Nice* : 98) and consequently adopted the specific name *membranaceus*, being the older of the two, for the species. The first author to do so was Heller, 1862 (*S.B. Akad. Wiss. Wien* **45** : 423). Other authors, the first being H. Milne Edwards, 1837 (*Hist. nat. Crust.* **2** : 417), identified *Peneus membranaceus* Risso with a species of shrimp, which in 1840 was described as new by Philippi (1840, *Arch. Naturgesch.* **6**(1) : 190) under the name *Peneus siphonoceros*. Lucas, 1849 (*Rev. Mag. Zool.* (2) **1** : 300) erected a new genus *Solenocera*, the type-species of which (by monotypy) was cited as "*Solenocera philippii* Lucas, *Penaeus siphonoceros* Philippi". (It is clear that the specific name *philippii* Lucas as here published is an invalid replacement name for the specific name *siphonoceros* Philippi.) At present the name *Solenocera membranaceum* is generally adopted for the latter species, though often H. Milne Edwards is cited as the author and not Risso, probably because there exists some doubt as to the identity of *Peneus Membranaceus* Risso, while the identity of *Penaeus membranaceus* H. Milne Edwards is perfectly clear. This practice of course cannot be tolerated and the name *membranaceus* can only be used for the species if *Penaeus membranaceus* of H. Milne Edwards and *Peneus Membranaceus* Risso are identical.

7. Heller, 1862, denied the correctness of H. Milne Edwards's identification of *Peneus Membranaceus* Risso with the species described by Philippi (1840) as *Peneus siphonoceros*, because Risso "gibt als Kennzeichen ein verlängertes Rostrum an, während M. Edwards im Gegentheil hervorhebt, dass das Rostrum dieser Art nicht einmal die Länge der Augen erreicht". Risso, 1826 (*Hist. nat. Europ. mérid.* **5** : 68) in his Latin diagnosis indeed states that the rostrum is long ("rostro longo") but he says nothing about this character in his French text. That "rostro longo" is a lapsus, is made probable by the fact that in the original (1816) description of this species Risso in the Latin diagnosis states "rostro brevi", while the French text says "un petit rostre aplati". Another argument in favour of the identity of *Peneus Membranaceus* Risso with *Peneus siphonoceros* Philippi is the fact that Risso (1826) mentions that the antennular flagella are thickened, which is a conspicuous feature in *Solenocera*, while in *Parapenaeus* the antennular flagella are normal in shape. As the question of the identity of *Peneus Membranaceus* Risso has caused undesirable confusion in carcinological literature, it seems best to settle this question under plenary powers and to identify under these powers *Peneus Membranaceus* Risso, 1816, with *Peneus siphonoceros* Philippi, 1840. This solution settles the question

once and for all, causes the least disturbance in carcinological nomenclature (the name *membranaceus* being at present generally used for Philippi's species) and in all probability gives the name *membranaceus* to the species to which it rightfully belongs. This decision at the same time removes one of the obstacles to the availability of the specific name *longirostris* Lucas.

8. A second name endangering the validity of the specific name *longirostris* Lucas, 1846, is that of *Peneus Cocco* Prestandrea, 1833 (*Effem. sci. lett. Sicilia* **6** : 6). Prestandrea gives a very accurate description of his new species, which leaves not the least doubt that *Peneus Cocco* is identical with *Peneus longirostris* Lucas. As the original description of *Peneus Cocco* is given in a journal which is scarce and difficult to obtain, it obviously has escaped the notice of later authors and therefore has seldom, if ever, been used and is not found at all in modern carcinological literature. It seems an act of injustice not to use the name given to a species by the first author describing it, the more so as the description is of high quality. But for the sake of stability in carcinological nomenclature it certainly is better to suppress the neglected specific name *Cocco* Prestandrea, in order to save the well-known specific name *longirostris* Lucas, which at present is universally accepted for the species in question and the changing of which will cause an enormous confusion in scientific and non-scientific carcinological literature.

9. Subfamily names have been derived from both the generic names *Solenocera* and *Parapenaeus*. The subfamily SOLENOCERINAE (emendation by Ortmann, 1898, Bronn's *Klass. Ordn. Thierr.* **5**(2) (50–52) : 1121, of SOLENOCERINA) Wood-Mason & Alcock, 1891, *Ann. Mag. nat. Hist.* (6) **9** : 275 is currently recognised by most carcinologists, while PARAPENAEINAE (emendation by Ortmann, *op. cit.* (47–49) : 1120, of PARAPENAEINA) Wood-Mason & Alcock, 1891, *op. cit.* : 271 is as a rule synonymized with the subfamily PENAEINAE Rafinesque, 1815, already placed on the Official List (as PENAEIDAE) in Direction 15.

10. I therefore propose that the International Commission on Zoological Nomenclature should :—

(1) use its plenary powers :—
  (a) to identify the nominal species *Peneus Membranaceus* Risso, 1816, with the nominal species *Peneus siphonoceros* Philippi, 1840 ;
  (b) to suppress for the purposes of both the Law of Priority and the Law of Homonymy the generic name *Parapenaeus* Claus, 1876 ;
  (c) to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy, the specific name *cocco* Prestandrea, 1833, as published in the binomen *Peneus Cocco* ;

(2) place the following generic names on the Official List of Generic Names in Zoology :—
  (a) *Parapenaeus* Smith, S. I., 1885 (gender : masculine), (type-species, by original designation, *Peneus longirostris* Lucas, 1846) ;
  (b) *Solenocera* Lucas, 1849 (gender : neuter) (type species by monotypy, *Peneus siphonoceros* Philippi, 1840) ;

(3) place the following specific names on the Official List of Specific Names in Zoology :—

(a) *longirostris* Lucas, 1846, as published in the binomen *Peneus longirostris* (type-species of *Parapenaeus* Smith, S. I., 1885) ;

(b) *membranaceus* Risso, 1816, as published in the binomen *Peneus Membranaceus* (sic) (the oldest specific name subjectively available for the type-species of *Solenocera* Lucas, 1849) ;

(4) place the generic name *Parapenaeus* Claus, 1876, (as suppressed under the plenary powers in (1)(b) above) on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(5) place the following names on the Official Index of Rejected and Invalid Specific Names in Zoology :—

(a) *cocco* Prestandrea, 1833, as published in the binomen *Peneus cocco* (suppressed under the plenary powers in (1)(c) above) ;

(b) *philippii* Lucas, 1849, as published in the binomen *Solenocera philippii* (an invalid replacement name for the specific name *siphonoceros* Philippi, 1840, as published in the binomen *Peneus siphonoceros*) ;

(6) place the following names on the Official List of Family-Group Names in Zoology :—

(a) PARAPENAEINAE (emendation by Ortmann, 1898, of PARAPENAEINA) Wood-Mason & Alcock, 1891 (type-genus *Parapenaeus* Smith, S. I., 1895) ;

(b) SOLENOCERINAE (emendation by Ortmann, 1898, of SOLENOCERINA) Wood-Mason & Alcock, 1891 (type-genus *Solenocera* Lucas, 1849) ;

(7) place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :—

(a) PARAPENAEINA Wood-Mason & Alcock, 1891 (an incorrect original spelling of PARAPENAEINAE) (type-genus *Parapenaeus* Smith, S. I., 1885) ;

(b) SOLENOCERINA Wood-Mason & Alcock, 1891 (an incorrect original spelling of SOLENOCERINAE) (type-genus *Solenocera* Lucas, 1849).

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE SPECIFIC NAME *LONGICORNE* LATREILLE, 1804, AS PUBLISHED IN THE BINOMEN *ACRYDIUM LONGICORNE* (CLASS INSECTA, ORDER ORTHOPTERA). Z.N.(S.) 675

By D. K. McE. Kevan (*Macdonald College, Province of Quebec, Canada*)

The case for the suppression of the specific name *longicorne*, *Acrydium*, Latreille, 1804 (*Hist. nat. Crust. Ins.* **12** : 159) has been stated by Ander (1943, *K. fysiogr. Sällskap. Handl.* Lund, N.F. **53**(7) : 21–22). Briefly, the case is that it is impossible to be certain which of two taxonomic species should bear Latreille's name. These two species are *Gryllus parallelus* Zetterstedt, 1821 (*Orthopt. svec.* : 85) and *Gryllus montanus* Charpentier, 1825 (*Hor. Ent*, **1825** : 173), and different authors have attempted to show that one or other of them (but not both) should bear the specific name *longicorne* Latreille, 1804, the name not synonymized with *Acrydium longicorne* being the valid name of another species. Other authors (e.g. Chopard, 1922, *Faune de France* **3** : 153 ; Burr, 1936, *Brit. Grasshoppers and Allies* : 96) have held that *montanus* represents only the macropterous form of *parallelus* (which they have regarded as distinct from *longicorne*) and have therefore treated these two names as synonyms ; but it is now generally accepted that *montanus* and *parallelus* represent distinct species, both now referable to the genus *Chorthippus* Fieber, 1852 (*in* Kelch, *Grund. Orth. Oberschles.* : 1). The type-species of this genus, by subsequent designation by Kirby (1910, *Syn. Cat. Orthopt.* **3** : 185) is *Acrydium albomarginatum* De Geer, 1773, *Mem. Ins.* **3** : 480.

2. When the specific names *parallelus* Zetterstedt, 1821, and *montanus* Charpentier, 1825, were considered synonyms, the adoption of *longicorne* Latreille, 1804, for the other taxonomic species in question was a cause of confusion, because many authors considered *parallelus* to be a synonym of that name, *longicorne* thus being transferred to a different species, to which they believed it had never been attached. The confusion is increased now that the names *montanus* and *parallelus* are applied to different species, first because it is not certain which of them should be displaced by Latreille's name (though current opinion regards *parallelus* as more likely than *montanus* to be a synonym of *longicorne*) ; and secondly, because Hebard (1936, *Tech. Bull. N. Dakota Agric. Exper. Sta.* **284** : 31–32) has applied the name *longicorne* Latreille, 1804, to an American species previously known as *Chorthippus curtipennis* [*Locusta* (*Chloealtis*) *curtipennis* Harris, 1841, *Rep. Ins. Mass.* : 149] declaring *parallelus* to be a synonym, but not mentioning *montanus*, with which the American species seems more closely identified. Hebard (*op. cit.*), however, implied that he considered all four names to be synonyms.

3. The present proposal, which follows from Dr. Ander's suggestion made in 1943, is therefore that the International Commission on Zoological Nomenclature should :

(1) use its plenary powers to suppress the specific name *longicorne* Latreille,

1804, as published in the binomen *Acrydium longicorne*, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) place the specific name *longicorne* Latreille, 1804, as published in the binomen *Acrydium longicorne* (suppressed under the plenary powers in (1) above), on the Official Index of Rejected and Invalid Specific Names in Zoology ;

(3) place the generic name *Chorthippus* Fieber, 1852 (gender : masculine), type-species, by subsequent designation by Kirby, 1910 (*Acrydium albomarginatum* De Geer, 1773), on the Official List of Specific Names in Zoology ;

(4) place the following specific names on the Official List of Specific Names in Zoology :
   (a) *albomarginatum* De Geer, 1773, as published in the binomen *Acrydium albomarginatum* (type-species of *Chorthippus* Fieber, 1852) ;
   (b) *parallelus* Zetterstedt, 1821, as published in the binomen *Gryllus parallelus* ;
   (c) *montanus* Charpentier, 1825, as published in the binomen *Gryllus montanus*.

REQUEST FOR A RULING ON WHETHER THE GENERIC NAME *DIEMICTYLUS* RAFINESQUE, 1820, OR THE GENERIC NAME *NOTOPHTHALMUS* RAFINESQUE, 1820, IS TO BE USED FOR THE EASTERN NORTH AMERICAN NEWT (CLASS AMPHIBIA). Z.N.(S.)728

By Hobart M. Smith (*Department of Zoology, University of Illinois, Urbana, Illinois, U.S.A.*)

The present application arises out of changes made over the last eleven years in the rules for determining the relative precedence of synonyms published simultaneously. Article 28 of the old Règles stated that questions of this sort were to be determined by the action of the first reviser, but this was replaced by the Thirteenth Congress (Paris, 1948) by a rule that such cases must be decided by page and line priority (*Bull. zool. Nomencl.* **4** : 330–331). The Fourteenth Congress (Copenhagen, 1953) revoked the Paris decision and restored the " first reviser " principle (*Copenhagen Decisions zool. Nomencl.* : 66–67, paras. 123–124), and this was endorsed by the Fifteenth Congress (London, 1958).

2. In 1952, when I first submitted this application, the Rules then in force required the application of page and line priority to this case, and on the basis of usage up to that time, it seemed to me that the plenary powers should be used to apply instead the first reviser rule. The Rules now in force require the application of the first reviser principle, so that my original proposal would no longer require the use of the plenary powers. I am not now, however, so certain as I then was that this course would be desirable, for while European usage follows the first reviser principle, recent American usage follows page and line precedence. It is for this reason that the Commission is asked to settle the question, for the existing diversity of usage is not likely to be resolved by zoologists themselves.

3. In the *Annals of Nature*, 1820 : 5 Rafinesque proposed two new subgenera of *Triturus*, namely *Diemictylus* (line 8), to contain only his new species *Triturus viridescens*, and *Notophthalmus* (lines 26–27), to contain only his new species *Triturus miniatus*. These two species, which are the type-species by monotypy of their respective subgenera, have been universally agreed to be congeneric, if not conspecific, and the names are now held to represent the aquatic and terrestrial forms respectively of the same subspecies. The two subgeneric names are, moreover, the oldest available names for the genus (of present classification) concerned. It is clear that *Diemictylus* has position priority over *Notophthalmus*, and *viridescens* over *miniatus*.

4. The earliest disposition of the subgeneric names was that of Baird (1850, *J. Acad. nat. Sci. Philad.* (2) **1**(4) : 284). He expressly selected *Notophthalmus*, and synonymized *Diemictylus* with it. He altered the name to *Notopthalmus*, but this was an erroneous subsequent spelling with no status in nomenclature, and he gave an unequivocal reference to Rafinesque. In the same year Gray (*Cat. Bat. Grad. brit. Mus.* : 22) accepted Baird's revision,

with the names correctly spelled, and with clear references to Rafinesque and Baird. Under the "first reviser rule", therefore, *Notophthalmus* was selected in preference to *Diemictylus* in the year 1850 on two separate occasions.

5. The species *Triturus viridescens* was established on line 3 of page 5 of the *Annals of Nature*, with a description. *Triturus miniatus* was established on line 17 of the same page, with a description. Authors prior to Cope (1859, *Proc. Acad. nat. Sci. Philad.* **11** : 126) regarded the species as separate, although Hallowell (1856, *ibid.* **8** : 6–11 ; 1858, *J. Acad. nat. Sci. Philad.* (2) **3** : 337–366) expressed the opinion that they were but one species. Cope, however, (*op. cit.*) expressly recognized *viridescens* (in the binomen *Diemictylus viridescens*), synonymizing *miniatus* with it. In acting as first reviser at the specific level, Cope thus adopted the principle of line-priority. His choice of specific name has been generally followed, together with Baird's choice of generic name.

6. While it is clear that *Notophthalmus* is the valid genus-group name, and *viridescens* the valid species-group name under the Rules at the present time, and while also there is no lack of uniformity at the lower level, it is not clear that the application of the Rules would be in the best interests of stability of nomenclature at the higher level. This is on account of the diversity of usage by different authors of the two genus-group names involved, and it is further complicated by the fact that, until the definitive work of Wolterstorff & Herre (1935, *Arch. Naturg.* N.F. **4**(2) : 217–229) had clarified the taxonomic situation, the generic names *Molge* and *Triturus* were also in use for the species in question. The usage of the two names of Rafinesque in selected works of significance is summarized below :

Diemictylus

Hallowell, 1856, *op. cit.* (in the unjustified emendation *Diemyctylus*), 1858, *op. cit.* (as *Diemyctylus*) ; Cope, 1859, *op. cit.* (as *Diemyctylus*, with the erroneous subsequent spelling *Diemichylus* on p. 128), 1889, *Bull. U.S. nat. Mus.* **34**, as *Diemyctylus* ; Gunther, 1901, *Biol. centr.-Amer.*, signature 38 ; *Stejneger*, 1907, *Bull. U.S. nat. Mus.* **58** ; Wolterstorff & Herre, 1935, *op. cit.* ; Smith & Taylor, 1948[1], *Bull. U.S. nat. Mus.* **194** ; Brown, B. C., 1950[1], *Baylor Univ. Studies* ; Bragg, A. N., 1952[1], *Wasmann J. Biol.* **10**(2) : 241–250 ; Schwartz & Duellman, 1952, *Bull. Chicago Acad. Sci.* **9**(12): 219–227; and Schmidt, K. P., 1953, *Checklist N. Amer. Amphib. Rept.*, 6th ed.

Notophthalmus

Baird, 1850, *op. cit.* (in the erroneous subsequent spelling *Notopthalmus*) ; Gray, 1850, *op. cit.* (in the erroneous subsequent spelling *Notophthalmia*), 1858, *op. cit.* (in the erroneous subsequent spelling *Notophthalma*) ; Gill, 1907, *Science*, N.S. **26** : 256 ; Stejneger & Barbour, 1917, *Checklist N. Amer. Amphib. Rept.*, 1923, *ibid.*, 2nd ed. ; Herre, 1936, *Abh. Ber. Mus. Nat. Magdeburg* **7**(1) : 79–98 ; Mertens, 1951, *Zwischen Atlantik und Pazifik* ; von Wahlert,

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[1] These three usages reflect the rapid adoption of Wolterstorff & Herre's 1935 taxonomy, and of *Diemictylus* with it ; Herre's 1936 paper pointing out that *Notophthalmus* is the correct name under the Rules having been generally overlooked.

1952, *Copeia* **1952**(1) : 29–30, 1953, *Herpetologica* **9** : 95–99.

7. With usage thus divided between the two names, it is clear that only a ruling from the Commission can put a stop to the existing confusion, and that this must be guided to some extent by the wishes of herpetologists. I may add that, although in 1953 (Smith, *op. cit.*) I concluded that steps should be taken to conserve *Notophthalmus*, and requested others to adopt that name, recent American usage has tended to follow the example set by Cope, Stejneger (1907) and Schmidt (1953) in adopting *Diemictylus*, whereas recent European usage has tended to favour *Notophthalmus*. I therefore set out below the precise results of each of the two alternative courses open to the Commission in this case, and I appeal to my colleagues to inform the Commission of their views, so that the eventual decision may be taken on as broad a basis of informed comment as possible.

8. The genus variously known as *Notophthalmus* and *Diemictylus* is currently referred to the family SALAMANDRIDAE, and neither of those genus-group names has ever been used as the basis of a family-group name. No family-group name problem therefore arises in this case.

9. I therefore request the International Commission on Zoological Nomenclature :

(1) to decide whether or not to use its plenary powers to determine the generic name to be used for the eastern North American newt, and then to adopt whichever of the two following alternatives is appropriate :

ALTERNATIVE A

(2) (a) to use its plenary powers to suppress the generic name *Notophthalmus* Rafinesque, 1820, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(b) to place the generic name *Diemictylus* Rafinesque, 1820 (gender : masculine), type-species, by monotypy, *Triturus viridescens* Rafinesque, 1820, on the Official List of Generic Names in Zoology ;

(c) to place the specific name *viridescens* Rafinesque, 1820, as published in the binomen *Triturus viridescens* (type-species of *Diemictylus* Rafinesque, 1820), on the Official List of Specific Names in Zoology ;

(d) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :

(i) *Notophthalmus* Rafinesque, 1820, as suppressed under the plenary powers in (a) above ;

(ii) *Diemyctylus* Hallowell, 1856 (an unjustified emendation of *Diemictylus* Rafinesque, 1820) ;

(iii) *Diemichylus* Cope, 1859, and *Diemyctelus* Gunther, 1901, erroneous subsequent spellings of *Diemictylus* Rafinesque, 1820 ;

(iv) *Notopthalmus* Baird, 1850, *Notophthalmia* Gray, 1850, and *Notophthalma* Gray, 1858 (erroneous subsequent spellings of *Notophthalmus* Rafinesque, 1820).

ALTERNATIVE B

(3) (a) to place the generic name *Notophthalmus* Rafinesque, 1820 (a name selected by Baird, 1850, as first reviser, in preference to *Diemictylus*) (gender : masculine), type-species, by monotypy, *Triturus miniatus* Rafinesque, 1820, on the Official List of Generic Names in Zoology ;

(b) to place the specific name *viridescens* Rafinesque, 1820 (the oldest available name through the action of Cope, 1859, for the type-species of *Notophthalmus* Rafinesque, 1820) on the Official List of Specific Names in Zoology ;

(c) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :

(i) to (iii) as (ii) to (iv) under Alternative A above.

PROPOSAL TO USE THE PLENARY POWERS TO STABILISE THE NAMES OF THE NORTH EUROPEAN SPECIES BELONGING TO THE *TIPULA OLERACEA* GROUP WITHIN THE GENUS *TIPULA* LINNAEUS, 1758 (CLASS INSECTA, ORDER DIPTERA). Z.N.(S.) 896

By A. M. Hemmingsen (*Strödam Biological Laboratory, Hilleröd, Denmark*) and Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*)

The group of species of the genus *Tipula* Linnaeus, 1758, centring around *Tipula oleracea* Linnaeus, 1758, which is the type-species of the genus (by selection by Latreille, 1810, *Consid. gén. Anim. Crust. Arachn. Ins.* : 442, 379), is a very important one from an economic point of view. The three species from Northern Europe are all among the principal enemies of crops. Therefore, it is of the utmost importance to prevent any change in their names for purely nomenclatorial reasons. Recent discoveries, however, have made it clear that all these names are in danger of being altered for reasons of priority.

2. In the following, the three species will be designated by capital letters as follows :

Species *A* has till now been mentioned in the literature as *T. oleracea* Linnaeus, 1758, except in some very few quite recent papers (*vide* below).

Species *B* is generally called *T. paludosa* Meigen, 1830.

Species *C* was recognised as distinct by de Jong in 1925 and was given the name *T. czizeki* de Jong, 1925, under which name it has been widely known to workers in applied entomology.

At present, our knowledge of the identity of the nominal species involved in these problems may be summarised as follows :

3. (a) *Tipula oleracea*. When, in 1758, Linnaeus described this species (*Syst. Nat.* (ed. 10) **1** : 585, 4) he could have had before him one, or more than one, of the three species mentioned, but apparently no other. De Jong (1925, Een Studie over Emelten . . ., Diss. Wageningen : 14) realising that two species were confused under the name of *T. oleracea* L., gave the new name *czizeki* to one of them, but, as will appear from the following, he happened to choose the wrong one. He refers to a paper by K. Czizek (1913, Tipulidae Moravicae *Z. Mährischen Landesmus.* Brünn **13** : 133–142, espec. 137) who regards the species *C* as the true *oleracea* L. De Jong cannot follow Czizek in his conclusions and, therefore, creates the new name for the species *C*, confining the name *oleracea* to the species *A*.

4. Tjeder (1941, *Opusc. Entom.* **6** : 61) was the first to point to our deficiency in the identification of the true *T. oleracea*. He refers to the rare occurrence of species *A* in Sweden, concluding that Linnaeus's species must be either *B* or *C*, and in all probability it is *B*. Mannheims (1952, Tipulidae, *in* Lindner ; *Die Fliegen d. Palaearct. Reg.* (15) : 76) reaches a somewhat different result by way of the examination of a specimen in the Linnean Collection at the Linnean Society in Burlington House, London (quoted from a letter from

R. L. Coe to Mannheims). The said specimen belongs to species *C*, but it does not carry any reference number to the species in the *Syst. Nat.* Therefore, this specimen cannot safely be regarded as the type. This being the only preserved indication of the real intentions of Linnaeus, however, Mannheims concludes that probably the true *oleracea* of Linnaeus is the species *C*.

5. Then, Tjeder (1953, *Opusc. Entom.* **18** : 111) arguing against Mannheims, stresses the rarity in Sweden of the species *A* which, having been recorded with certainty from Sweden only six times in all, cannot well have had any real chance to be the species used by Linnaeus for his description. The species *B*, however, is most common and—according to Tjeder—should be accepted as the one described by Linnaeus under the name *oleracea*. Tjeder, too, mentions that in Sweden the species *C* has been found in a number of places scattered over most of the country, but he gives no reason at all why Linnaeus could not have used a specimen of this species for his description.

6. Further, Tjeder (1953, *loc. cit.*) argues at length over the question whether the confusion of the different species has ever been introduced into the Scandinavian literature on this subject. Again, he states that the name *oleracea* has not been applied to species *A* by the Scandinavian authors (which is evidently because the species is so rare in this region and, also, because the species *A* and *B* were universally confused up till the year 1925). As to Norway, Tjeder (1953, *loc. cit.*) cites Lackschewitz (1933, *Norsk Ent. Tidskr.* **3** : 247) who records that out of seven specimens investigated, five belonged to *B*, and two to *C*. Therefore, from the facts stated by Tjeder, it appears that although it is very improbable that the *oleracea* of Linnaeus was really the species *A*, the chance that it is *C* cannot be excluded. At the same time it appears that earlier Scandinavian authors have confused the three species in exactly the same way as have those working in other areas, but that they have had less occasion to involve the species *A* in their considerations.

7. Mannheims (1954, *Bonn Zool. Beitr.* **5** : 166) adds the new and still more confusing information that a re-examination of the severely damaged original specimen—a male—of Meigen (1818, *Syst. Beschr. zweifl. Ins.* : 189, 30) of his " *oleracea* Linnaeus ", now in the Paris Collections, has turned out to show that the specimen belongs to the species *C*.

8. (b) *Tipula fimbriata* Meigen, 1818 (*Syst. Beschr. zweifl. Ins.* **1** : 190, 31) is unquestionably the species *B* (*vide* Mannheims, 1952 : 78), but the name is totally out of use.

(c) *Tipula paludosa* Meigen, 1830 (*Syst. Beschr. zweifl. Ins.* **6** : 289, 5) has always been regarded correctly as being the species *B*.

(d) *Tipula fusca* Staeger, 1840 (Kröyer, *Naturh. Tidsskr.* **3** : 14) is the species *C* (*vide* Mannheims, 1952 : 81). Tjeder (1953 : 115) cites *fusca* Staeger as being preoccupied, but it has not been possible to trace the reference in question. Sherborn (*Ind. Anim.*) does not contain any indication thereon. Therefore, until more evidence is brought forward, the name *fusca* Staeger is to be treated as an available name.

(e) *Tipula subcunctans* Alexander, 1921 (*Ann. Ent. Soc. Amer.* **14** : 127) is a name given to specimens from Northern Japan. Later, Alexander (1942, *Conn. Geol. Nat. Hist. Surv. Bull.* **64** : 261) writes : " *subcunctans* Alex.

(*czizeki* de Jong) occurs throughout Europe and Northern Asia into Northern Japan . . ." Mannheims (1952, *loc. cit.* : 81) who records the species *C* from Siberia, accepts the view of Alexander that *subcunctans* is the species *C* but, having had no opportunity of inspecting the type of *subcunctans*, he makes the identification with qualification only.

(f) *Tipula czizeki* de Jong, 1925 (*loc. cit.* : 14) is the species *C*.

(g) *Tipula submendosa* Tjeder, 1941 (*Opusc. Entom.* **6** : 62) is a *nomen novum* for *Tipula oleracea* Auctt. non Linnaeus, and is thus the species *A*.

9. Summarising, according to the Rule of Priority, we may state that the names to be used would in all probability be as follows :

A. *oleracea* Linnaeus is to be changed to	*submendosa* Tjeder
B. *paludosa* Meigen is to be changed to	either *fimbriata* Meigen or to *oleracea* Linnaeus
C. *czizeki* de Jong is to be changed to	either *oleracea* Linnaeus or to *fusca* Staeger

The confusion of the three species has been universal up to the year 1925. Then, unfortunately, de Jong renamed the wrong species. After him, the names have been used in the sense proposed by him, except that a few specialists have realised that this use of the names is contrary to the Rule of Priority. The taxonomists seem unable to arrive at any final opinion as to what is the correct use of the names, and the applied entomologists and other non-taxonomists cannot wait indefinitely for such a decision which, in any case, will run counter to established practice. Therefore, although we are not taxonomists in the group of species here treated, we feel the necessity that something should be done to settle the question. Two things need to be done : (1) a neotype of *T. oleracea* is to be defined, and (2) established practice in the use of the three names should be legalised.

10. As to the first of these two problems, Mannheims (1954 : 166) proposes to use the definition of *oleracea* given by Schiner (1864, *Fauna Austr. Dipt.* **2** : 518). However, this description, although very good, does not contain any figure, and it is not possible in this way to select any neotype. The purpose of establishing a definition of the said species beyond any doubt would thereby not be fulfilled. This solution being impossible, we would have preferred to use as the type the specimen figured by de Jong (1925) who was the first to distinguish correctly between these species—if it was not for the difficulties involved in references to rather remote papers. Therefore, we have chosen a specimen which, being figured in one of the central publications in the literature on the diptera, has been thoroughly investigated and is still existing. It is a specimen figured by Mannheims (1952), with its locality given as a place—Kochem/Mosel—in Southern Germany, i.e. approximately in the middle of the region from which most of the material relating to this species (*A*) has come.

11. In the hope that this application will elicit comments from any specialist who becomes aware of any relevant fact which we have been unable to grasp in our attempts to avoid the disturbance to the work of non-taxonomists in these fields, we hereby present the proposal to the International Commission on Zoological Nomenclature.

(1) To use the plenary powers:
  - (a) to set aside all type designations prior to the Ruling now asked for for the species *oleracea* Linnaeus, 1758, as published in the combination *Tipula oleracea*, and to designate as its neotype the specimen, the hypopygium of which is figured by Mannheims (1952, *in* Lindner: *Die Fliegen d. Palaearkt. Reg.* (15): 77, fig. 39 b—from Kochem/Mosel);
  - (b) to suppress for the purposes of priority, but not for those of homonymy, the specific names:—
    - (i) *fimbriata* Meigen, 1818, as published in the binomen *Tipula fimbriata*;
    - (ii) *fusca* Staeger, 1840, as published in the binomen *Tipula fusca*;
    - (iii) *subcunctans* Alexander, 1921, as published in the binomen *Tipula subcunctans*.

(2) to place on the Official List of Generic Names in Zoology the generic name *Tipula* Linnaeus, 1758 (gender: feminine), type-species by selection by Latreille, 1810, *Tipula oleracea* Linnaeus, 1758.

(3) to place the under-mentioned names on the Official List of Specific Names in Zoology:
  - (a) *oleracea* Linnaeus, 1758, as published in the binomen *Tipula oleracea* and now defined under (1)(a) above;
  - (b) *paludosa* Meigen, 1830, as published in the binomen *Tipula paludosa*;
  - (c) *czizeki* de Jong, 1925, as published in the binomen *Tipula czizeki*.

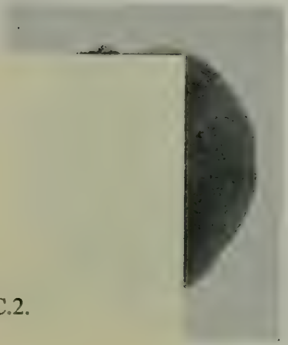
(4) to place the under-mentioned names on the Official Index of Rejected and Invalid Specific Names in Zoology, (a) as suppressed under the plenary powers in (1)(b) above:—
    - (i) *fimbriata* Meigen, 1818, as published in the binomen *Tipula fimbriata*;
    - (ii) *fusca* Staeger, 1840, as published in the binomen *Tipula fusca*;
    - (iii) *subcunctans* Alexander, 1921, as published in the binomen *Tipula subcunctans*; and
  - (b) *submendosa* Tjeder, 1941, as published in the binomen *Tipula submendosa*, a junior objective synonym of *Tipula oleracea* Linnaeus, 1758.

(5) to place on the Official List of Family-Group Names in Zoology the family-group name TIPULIDAE (correction of TIPULARIAE) Latreille, [1802–1803], type-genus *Tipula* Linnaeus, 1758;

(6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the family-group name TIPULARIAE Latreille, [1802–1803] (an incorrect original spelling for TIPULIDAE).

APPENDIX

The specimen proposed as the neotype of *Tipula oleracea* L. is the specimen, the hypopygium of which is figured by Mannheims (1952) *in* Lindner: *Die Fliegen der Palaearkt. Region* **15**: 77, fig. 39b. Dr. Mannheims kindly informs



10-24, Scrutton Street,
London, E.C.2.

Dear Sir/Madam,

We trust that you have already received your copy of The Bulletin of Zoological Nomenclature, Volume 17, Triple Part 6-8, printed by us on behalf of the International Commission.

By an unfortunate error on our part, the plate which should face page 212 of this Volume was omitted. We enclose herewith a copy of this plate for insertion in the appropriate place, and ask you to accept our apologies for any inconvenience caused by this oversight.

Yours faithfully,

Metcalfe & Cooper Ltd.

(1) To use the plenary powers:

(a) to set aside all type designations prior to the Ruling now asked for

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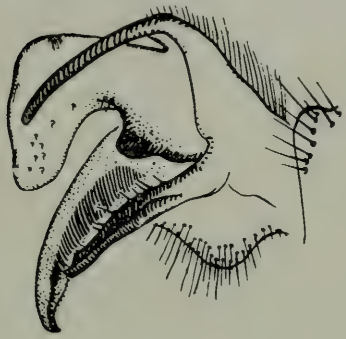

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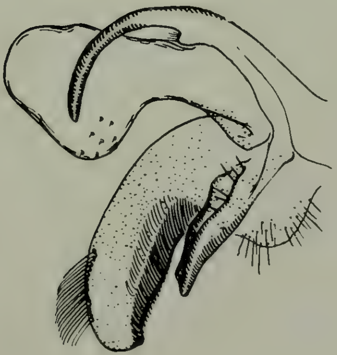

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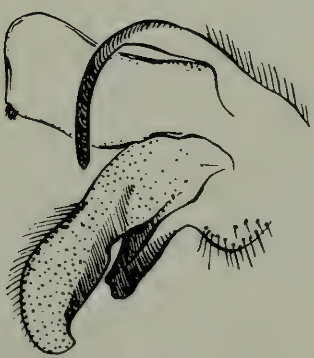

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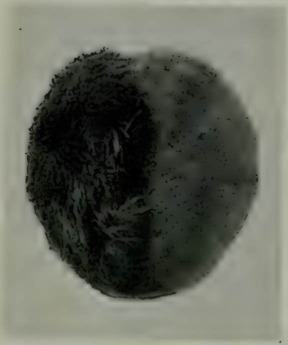

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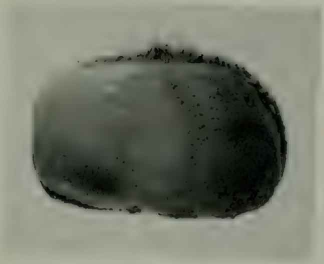

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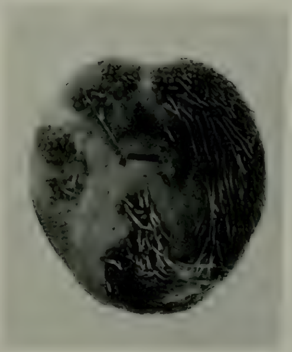

6

For explanation see pp. 213 (figs. 1-3) and 219 (figs. 4-6).

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NATURAL HISTORY

us that the labels for this specimen are as follows :—

> " Das . . . Exemplar von *Tipula oleracea* befindet sich im Zoologischen Forschungsinstitut und Museum A. Koening, Bonn—also in einer öffentlichen Sammlung. Es trägt folgende Etiketten :
>
> (a) Kochem/Mosel, Rhld. Germania 9.IV.46 leg. Mannheims.
>
> Darunter:
>
> (b) Kochem-Kond, Moseluferwiesen, 9.IV.46.
>
> Darunter:
>
> (c) *Tipula oleracea* Linn., 1758 det Mannheims, 1947.
>
> Unter diese 3 Etiketten habe ich noch einen roten Zettel gesteckt mit der Aufschrift " Neotypus Hemmingsen, Lemche, Mannheims 1955 ".

The three species *A*, *B* and *C* concerned in the present application may be distinguished as follows :—

Antennae 14-jointed, female wings shorter than abdomen, eyes widely separate beneath head, antennae pale at base — species *B* (*paludosa*).

Antennae 13-jointed, female wings longer than abdomen, eyes almost touching beneath head, basal joints of antennae pale, the upper edge of id-pars$_3$ (part 3 of inner dististylus) without hairs — species *A* (*oleracea*).

Antennae 13-jointed, female wings about as long as abdomen, eyes widely separate beneath head, antennae practically wholly dark, sometimes the second basal joint thereof light, the upper edge of id-pars$_3$ with hairs — species *C* (*czizeki*).

Explanation of Plate 1 *Figs* 1–3.

(1) Neotype of species A (proposed name, *Tipula oleracea* Linnaeus, 1758) from Kochem/Mosel, Germany. Coll. 9.IV.1946. Hypopygium only (Mannheims, 1952, fig. 39b)

(2) Species B (*Tipula paludosa* Meigen, 1830) from Detmold, Germany. Coll. 27.VIII.1940. (Mannheims, 1952, fig. 40c) Hypopygium only

(3) Species C (*Tipula czizeki* de Jong, 1925) from Corno Renon at Bolzano, Italy, 2100 m. Coll. 5.X.1947. Hypopygium only (Mannheims, 1952, fig. 41c)

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAME *SPATAGUS* O. F. MÜLLER, 1776 (CLASS ECHINOIDEA)

Z.N.(S.)1195

By R. V. Melville (*Geological Survey & Museum, London*)[1]

The present report was first prepared in response to a request from Mr. Hemming, at that time Secretary to the Commission, for advice as to the status of the names *Spatagus* and *spatagus*, in the Class Echinoidea.

2. The words Spatagus and Spatangus were used throughout pre-Linnean natural history as alternative spellings of the Greek word variously spelt *σπατάγος*, *σπατάγγος*, *σπατάγγης* and used by Aristotle to denote a heart-urchin. Since 1757 the former has been used both as a generic and as a specific name. The latter, as *Spatangus* Gray, 1825, has been added to the Official List of Generic Names in Zoology in Opinion 209. The same word has also been used as a specific name.

3. The first available use of the word *spatagus* as a specific name is by Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 665) in the binomen *Echinus spatagus*. The recognition of this species has not always been beyond doubt, but it is now generally accepted that Lovén, 1887 (*Bihang k. svenska Vetensk.-Akad. Handl.* **13** (4) No. 5 : 163) correctly identified *Spatangus brissus* var. *maculosus* Leske, 1778 (*Addit. Kleinii nat. Disp. Ech.* : 247) as a synonym of *Echinus spatagus*, and Linnaeus's name is now well established as representing a species of the genus *Metalia* J. E. Gray, 1855 (see Mortensen, 1952, *Monogr. Ech.* **5**(2) : 540–542). The specific name *spatagus* (*Echinus*), Linnaeus, 1758, should therefore be placed on the Official List.

4. The first available use of the word *spatangus* as a specific name is by Lamarck, 1816 (*Hist. nat. Anim. s. Vert.* **3** : 26), in the binomen *Ananchytes spatangus*. In 1822 Brongniart (*in* Cuvier & Brongniart, *Descr. géol. paléont. Env. Paris* : 388) recognized that Lamarck's species was doubtfully distinct from *Spatangus coranguinum* Leske, 1778 : 221 (type-species, by selection by Forbes, 1850, *Mem. Geol. Surv. U.K.* Dec. 3 : pl. 10, p. 2, of *Micraster* J. L. R. Agassiz, 1836, *Mém. Soc. nat. Neuchatel* **1** : 184), and it has universally been regarded as a synonym of that species ever since. *Micraster coranguinum* (Leske) is a species of considerable stratigraphical importance in the Chalk facies of the European Upper Cretaceous, and it has also been the subject of important evolutionary, statistical and palaeo-ecological studies, so that both the generic and the specific name should be placed on the Official List.

5. The first available use of the word *Spatagus* as a generic name is by O. F. Müller, 1776, *Zool. Dan. Prodr.* : xxix, 236. On p. xxix the name is indexed under " Characteres vermium " in the fourth group of Vermes as follows :

> " 4. TESTACEA
> a. *Univalvia*
> * Testa pervia
> Crustacea, *ano* infero, *tentaculatis* penicillatis SPATAGUS."

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[1] Published by permission of the Director, Geological Survey & Museum.

Bull. zool. Nomencl. Vol. 17, pts. 6–8. April 1960.

On p. 236 three species are referred to the genus, as follows :

" 2849. SPATAGUS *flavescens* ovatus, gibbus, ambulacris depressis. *Guld-Igel-Kiaer*. *Ech. spatagus* Linn.
2850. S. *purpureus* cordiformis, spinis majoribus raris albis.*†
2851. S. *pusillus* ovalis ambulacris quinis, ano remoto.
*†Fol-Trin, APH. 2, 485. nom. gen."

The sign * indicates that the species was not known to Linnaeus, and the sign † that the species had been discovered by Müller himself. The generic name clearly satisfies the requirements of availability.

6. The first of the three specific names listed under the generic name *Spatagus* is clearly intended as a replacement-name for the specific name *spatagus* Linnaeus. This is shown by the word-for-word agreement between the descriptions given by Linnaeus and by Müller, and by the fact that Müller listed Linnaeus's name in synonymy. The replacement was presumably made to avoid a tautonymous combination, but Müller's action has no validity under the Rules and *Spatagus flavescens* Müller is a junior objective synonym of *Spatagus spatagus* (Linnaeus).

7. Unfortunately, the strict application of the Rules in this case would produce great confusion, for the specific names *spatagus* Linnaeus and *flavescens* Müller have for a very long period been applied to two different species. The former, as already explained, is used for a species of the genus *Metalia* Gray, 1855 (type-species, by monotypy, *Spatangus sternalis* Lamarck, 1816, **3** : 31), which is placed in the family BRISSIDAE ; the latter is used for a species of the genus *Echinocardium* J. E. Gray, 1825 (type-species, by the use of the plenary powers in Opinion 209, *Echinus cordatus* Pennant, 1777), which is the type-genus of the subfamily ECHINOCARDIINAE of the family LOVENIIDAE. Neither species is the type-species of the genus to which it is referred, but if the binomen *Spatagus spatagus* (Linnaeus) is adopted as a valid name, then *Metalia* Gray becomes a junior subjective synonym of *Spatagus* and a new specific name is required for the species now known as *Echinocardium flavescens* (O. F. Müller). A further undesirable result would be the co-existence of two generic names differing in only a single letter (*Spatagus* and *Spatangus*) in the same suborder (or order, according to taxonomic usage) of Echinoidea.

8. Current nomenclature, so far as the two taxonomic species involved are concerned, dates from 1917 in the case of *Metalia spatagus*, and from 1872 in the case of *Echinocardium flavescens*. Since under the Rules these two nominal species are identical, stability of nomenclature can only be preserved if one of those nominal species is given a new type in harmony with current usage of the name. Since the type-specimen in the Linnean collection of *Echinus spatagus* is identified as a specimen of *Metalia spatagus* (Linnaeus), it would be preferable to designate a neotype for *Spatagus flavescens* O. F. Müller, especially in view of the fact that it is this specific name that has been wrongly applied. Through the courtesy of Dr. F. Jensenius Madsen (Universitetets Zoologiske Museum, Copenhagen), I have been able to borrow for study three specimens which undoubtedly belong to the species, and which serve admirably as the source of a neotype. I therefore ask that the plenary powers be used to designate one of these specimens (figured in the accompanying plate, facing

page 212) as the neotype of *Spatagus flavescens* O. F. Müller, 1776. The three specimens are in a bottle labelled "*Echinocardium flavescens* (O.F.M.), N.W. of Hantsholm, Skaggerak ; Datum 3.5.1926 ; Legit ' Dana ' St. 3558 ".

9. *Spatagus purpureus*, the second species listed by Müller under *Spatagus*, was adopted by Leske (1778 : 235) as the fifth species of his genus *Spatangus*, with a reference to Müller in the synonymy. The spelling *Spatangus* has been virtually universally adopted by all authors since Leske, including Gray, 1825, to whom the generic name is attributed in Opinion 209. However, *Spatagus* does not call for correction under any mandatory rule, and was in any case a direct latinization of one of the various spellings of the ancient Greek word. *Spatangus*, though equally respectable from the linguistic standpoint, thus appears as an unjustified emendation under the Rules. This was not made clear to the Commission when the draft ruling in Opinion 209 was submitted for a vote.

10. Müller's third species, *Spatagus pusillus*, is the type-species of *Echinocyamus* Van Phelsum, 1774, through the use of the plenary powers in Opinion 207. This ruling has established the genus in the sense that has universally, except for a few French authors, been given to it.

11. It is clear that the early authors regarded *Spatagus* and *Spatangus* as alternative spellings of the same word. This is shown by the fact that Leske (1778 : 237), Gray (1825, *Ann. Philos.* **26** : 424), Fleming (1828, *Hist. Brit. Anim.* : 480) and Forbes (1841, *Hist. British Starfishes* : 182) all refer to "*Spatangus purpureus* Müller ". As late as 1925, H. L. Clark (*Cat. rec. Ech. B.M.* : 224) spoke of "*Spatangus* O. F. Müller, 1776 . . . (printed *Spatagus*)."

12. Although the Ruling given in Opinion 209 is defective in several respects apart from that noted in paragraph 9 above, the decision was adopted under the plenary powers and should not therefore be tampered with. The generic name *Spatangus* must be regarded as finally stabilized, and is to be attributed to Gray, 1825 (instead of to Leske, 1778), and the fixation of *Spatagus purpureus* as its type-species was certainly the only acceptable course. Since *Spatagus pusillus* O. F. Müller was also finally stabilized in Opinion 207 as the type-species of *Echinocyamus*, the second and third of the three species originally included in *Spatagus* are finally disposed of, and the generic name can now be attached only to the first species, *Spatagus flavescens* O. F. Müller, of which the valid specific name is *spatagus* Linnaeus. The name of the genus to which the species *flavescens* is wrongly attributed, namely *Echinocardium* J. E. Gray, 1825, has been placed on the Official List in Opinion 209, so that the only generic name whose stability is threatened by the continued existence of *Spatagus* is *Metalia* Gray, 1855 (*Cat. rec. Ech. B.M.* (1) Ech. Irreg. : 51). The status of this name must now, therefore, be examined.

13. The generic name *Metalia* rests on somewhat insecure foundations. In Gray's catalogue, some of the larger genera of the SPATANGIDAE are divided into sections, some of which are named and some not. Each section is marked by one or more asterisks, according to its numerical position within its genus, and is given a brief diagnosis. Under *Brissus*, after the definition of the genus and a list of synonyms, there is a single asterisk prefixed to a generic description ending with the name *Metalia*. Then follows species 1, *Brissus sternalis* with

its definition and synonyms. After this are two asterisks prefixed to a generic description ending with the name *Brissus*. This is further divided into two sections, marked by one and two asterisks respectively, neither of which is named. Whereas the name *Brissus* O. F. Müller, 1781, was already established, *Metalia* was here used for the first time. Like the other two new names similarly proposed in the same work (and discussed below), *Metalia* is nowhere used in a binomen and does not appear in the systematic index at the end of the work, although it is included in the general index. It is thus not firmly established that Gray intentionally used the word as a generic name, but since *Metalia* and the other two names of a similar origin have been universally adopted as though he had done so, and since it is possible on that assumption to fix their type-species in accordance both with the Rules and with general practice, the proper course is clearly to seek the addition of all three names to the Official List. In the case of *Metalia*, as established by Gray, 1855, it is clear that *Spatangus sternalis* Lamarck, 1816, is the type-species by monotypy.

14. The two other names concerned are *Peronella* Gray, 1855 (: 13) and *Maretia* Gray, 1855 (: 48). In the former case, the genus *Laganum* Link, 1807, is divided into three sections. The first two are not named, but the third is named *Peronella* and is associated with only one species, namely, *Laganum peronii* J. L. R. Agassiz, 1841 (*Mon. Ech.* **2** : 123). This species is always cited as the type-species of *Peronella* and in fact it is so by monotypy. *Laganum* Link, 1807, was proposed (*Beschr. Nat.-Samml. Univ. Rostock*: 161) with two included species, *Echinus biforis* Gmelin, 1790 (*Syst. Nat.* (ed. 13) **1** : 3188) and *Laganum petalodes* Link. The first name is a junior objective synonym of *Echinodiscus bisperforatus* Leske, 1778, which was fixed as the type-species of *Echinodiscus* by the Commission at its Paris meeting in 1948 (*Bull. zool. Nomencl.* **4** : 530–536). *Laganum petalodes* Link is a replacement-name (presumably proposed to avoid tautonymy) for *Echinodiscus laganum* Leske, 1778 : 204, so that the type-species of *Laganum* Link is *Echinodiscus laganum* by absolute tautonymy.

15. The generic name *Maretia* Gray, 1855, ends the description of a section of *Spatangus*. The only species with which this description is associated is *Spatangus planulatus* Lamarck, 1816 (**3** : 31) and this is thus, as it is always cited, the type-species of *Maretia*, by monotypy. Mortensen, 1952 (*Mon Ech.* **5**(2) : 37) has shown that this is also the oldest available name for the species, and not *Spatangus ovalis* Leske, 1778 (: 252) as had been suggested.

16. The following family-group names are involved in the present case. *Echinocardium* J. E. Gray, 1825, is the type-genus of the subfamily ECHINOCARDIINAE Wythe Cooke, 1942 (*J. Paleont.* **16** : 59). The family-name SPATANGIDAE J. E. Gray, 1825 (*Ann. Phil.* **26** : 430) is one of the oldest such names in the Echinoidea, and denotes one of the largest and most important families ; it should be placed on the Official List in completion of the Ruling given in Opinion 209. This family includes the subfamily MARETIINAE Lambert, 1905 (*in* Doncieux, *Ann. Univ. Lyon* (17) : 162), based on *Maretia* Gray, 1855. *Laganum* Link, 1807, is the type-genus of the family LAGANIDAE, generally attributed to Desor, 1858 (*Syn. Ech. foss.* : 216–7). He published the name in the vernacular form " Les Laganes ", and the correct form of the name was

first used by A. Agassiz, 1873, *Mem. Mus. comp. Zool. Harvard* **3** : 516.

17. For the reasons set forth above I therefore ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers :
  (a) to suppress the generic name *Spatagus* O. F. Müller, 1776, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
  (b) to direct that the nominal species *Spatagus flavescens* O. F. Müller, 1776, is to be interpreted by reference to the neotype designated for it in paragraph 8 of the present application ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Laganum* Link, 1807 (gender : neuter), type-species, by absolute tautonymy, *Echinodiscus laganum* Leske, 1778 ;
  (b) *Micraster* Agassiz (J.L.R), 1836 (gender : masculine), type-species, by selection by Forbes, 1850, *Spatangus coranguinum* Leske, 1778 ;
  (c) *Peronella* Gray, 1855 (gender : feminine), type-species, by monotypy, *Laganum peronii* Agassiz (J.L.R.), 1841 ;
  (d) *Maretia* Gray, 1855 (gender : feminine), type-species, by monotypy *Spatangus planulatus* Lamarck, 1816 ;
  (e) *Metalia* Gray, 1855 (gender : feminine), type-species, by monotypy, *Spatangus sternalis* Lamarck, 1816 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *flavescens* O. F. Müller, 1776, as published in the binomen *Spatagus flavescens*, and as interpreted under the plenary powers in (1)(b) above ;
  (b) *coranguinum* Leske, 1778, as published in the binomen *Spatangus coranguinum* (type-species of the nominal genus *Micraster* Agassiz (J.L.R.), 1836) ;
  (c) *laganum* Leske, 1778, as published in the binomen *Echinodiscus laganum* (type-species of the nominal genus *Laganum* Link, 1807) ;
  (d) *planulatus* Lamarck, 1816, as published in the binomen *Spatangus planulatus* (type-species of the nominal genus *Maretia* Gray, 1855) ;
  (e) *sternalis* Lamarck, 1816, as published in the binomen *Spatangus sternalis* (type-species of the nominal genus *Metalia* Gray, 1855) ;
  (f) *spatagus* Linnaeus, 1758, as published in the binomen *Echinus spatagus* ;
  (g) *peronii* Agassiz (J.L.R.), 1841, as published in the binomen *Laganum peronii* (type-species of the nominal genus *Peronella* Gray, 1855) ;

(4) to place the generic name *Spatagus* O. F. Müller, 1776, as suppressed under the plenary powers in (1)(a) above, on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(5) to place the following family-group names on the Official List of Family-Group Names in Zoology :
  (a) SPATANGIDAE Gray, 1825 (type-genus *Spatangus* Gray, 1825) ;
  (b) ECHINOCARDIINAE Wythe Cooke, 1942 (type-genus *Echinocardium* Gray, 1825) ;
  (c) MARETIINAE (correction of MARETINAE) Lambert, 1905 (type-genus *Maretia* Gray, 1855) ;
  (d) LAGANIDAE (correction by A. Agassiz, 1873, of " Les Laganes ") Desor, 1858 (type-genus *Laganum* Link, 1807) ;

(6) to place the following family-group names on the Official Index of Rejected and Invalid Family-group Names in Zoology :
  (a) MARETINAE Lambert, 1905 (type-genus *Maretia* Gray, 1855), an incorrect original spelling of MARETIINAE ;
  (b) " Les Laganes " Desor, 1858 (type-genus *Laganum* Link, 1807), an incorrect (vernacular) original spelling for LAGANIDAE.

Explanation of Plate 1 figs. 4-6. 4, adapical ; 5, lateral ; 6, adoral views of proposed neotype of *Spatagus flavescens* O. F. Müller 1776, all × 1, from N.W. of Hantsholm, Skaggerak. Universitetets Zoologiske Museum, Copenhagen.

PROPOSALS CONCERNING HOMONYMOUS FAMILY-GROUP NAMES BASED ON THE GENERIC NAMES *DREPANA* SCHRANK, 1802 (CLASS INSECTA, ORDER LEPIDOPTERA), AND *DREPANIS* TEMMINCK, 1820 (CLASS AVES); REQUEST FOR THE USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAME *DREPANIS* BRISSON, 1760. Z.N.(S.) 901

By Dean Amadon (*American Museum of Natural History, New York, N.Y., U.S.A.*) and John Franclemont (*New York State College of Agriculture, Ithaca, N.Y., U.S.A.*)

The present case arises out of the use of the same word, DREPANIDAE, for a family of birds (type-genus *Drepanis* Temminck, 1820) and for a family of moths (type-genus *Drepana* Schrank, 1802). The case is a simple one except for the fact that the bird generic name involved is a junior homonym of *Drepanis* Brisson, 1760, a name which, so far as is known, has never been used since its first publication.

2. The nominal genus *Drepanis* Temminck, 1820 (*Man. d'Orn.* (ed. 2) **1** : lxxvi) was proposed with three species definitely included and a fourth species doubtfully referred to the genus. No type-species was designated or indicated. Of the three species definitely included in the genus, *Certhia pacifica* Gmelin, 1788 (*in* Linnaeus, *Syst. Nat.* (ed. 13) **1**(1) : 470) was designated as type-species by G. R. Gray, 1840 (*List Genera Birds* : 12). This is the earliest type-designation known for the genus, and the specific name in question is the oldest available name for its species.

3. The oldest family-group name based on this generic name is DREPANIDIDAE H. Gadow, 1891, *in* S. B. Wilson & A. H. Evans, *Aves Hawaiienses* (2) : 235. The same spelling was used by Wilson & Evans in the introduction to this work (: xxiv), but this appears to have been published later, and Gadow is always regarded as the author of the name. The spelling DREPANIDAE was used by P. Sushkin, 1929, *Verh. VI Int. Ornith. Kongr.* Kopenhagen : 375, while E. Mayr (1943, *Condor* **45** : 46) maintained that the correct spelling should be DREPANIIDAE.

4. The senior homonym mentioned in paragraph 1 above is *Drepanis* Brisson, 1760 (*Ornithologie* **2** : 506). In speaking of the sand-martin (or bank-swallow), Brisson said "*Hirundo riparia* sive *Drepanis*", so that *Hirundo riparia* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 192 is the type-species by monotypy. This species, which is not related to the Hawaiian honey-creepers for which Temminck used the generic name *Drepanis*, is referred to the genus *Riparia* Forster, 1817 (*Syn. Cat. brit. Birds* : 17), of which the type-species, by monotypy, is *Riparia europaea* Forster, 1817, *ibid.* Forster's specific name was proposed, however, as a replacement name for *riparia* Linnaeus, 1758 (*Hirundo*), presumably to avoid tautonymy, and is therefore a junior objective synonym of the latter. *Hirundo riparia* Linnaeus thus becomes, under Declaration 21, the type-species of *Riparia* Forster, 1817. It is recommended

that the Commission use its plenary powers to suppress *Drepanis* Brisson, 1760, so as to validate (*a*) the junior homonym *Drepanis* Temminck, 1820, and (*b*) the junior objective synonym *Riparia* Forster, 1817.

5. The generic name *Drepanis* was also used by Rafinesque, 1815 (*Analyse de la Nature* : 69), but this name is a *nomen nudum*, as shown by Richmond (1909, *Auk.* **26** : 37–55). It should therefore be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

6. The nominal genus *Drepana* Schrank, 1802, *Fauna Boica* 2(2) : 155, has as type-species *Phalaena falcataria* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 519, by subsequent designation by Westwood, 1840, *Introd. Mod. Class. Ins.*, Synopsis : 104. Hübner, [1819], *Verz. bekannt. Schmett.* (10) : 140, emended the generic name to *Drepania* and used it as the basis of the " Coitus " name " Drepaniae ", but Hübner's Coitus names are not generally accepted as family-group names, and indeed it appears that they ought not to be so, for they were used as plural epithets for the members of a genus rather than for suprageneric taxa. At the next higher level Hübner used the " Stirps " name " Platypterices ", but this is not a valid family-group name since it was not based on the name of an included nominal genus. Boisduval, [Nov. 1828], used the tribe name DREPANULIDI (*Eur. Lep. Ind. meth.* : 55), and this, though incorrectly formed from the generic name, should be accepted as the first family-group name based on *Drepana* Schrank, 1802. It has priority over PLATYPTERICIDAE [sic] Stephens, 1829 (1 June), *Nomencl. brit. Ins.* : 45, based on the generic name *Platypteryx* Laspeyres, 1803, *N. Schrift. Ges. naturf. Freunde* **4** : 29 ; and this generic name is in any case a junior objective synonym of *Drepana* Schrank, 1802, for *Phalaena falcataria* Linnaeus, 1758 was designated as its type-species by Curtis, 1835, *Brit. Ent.* : pl. 555. The family-name DREPANIDAE was first correctly spelled by Comstock, 1893, *Wilder Quarter-Century Book* : 98, 110.

7. Professor L. W. Grensted, Consulting Classical Adviser to the Commission, reported as follows on the formation of the family-group names involved in this case : " *Drepana* is undoubtedly derived directly from the Greek δρεπάνη, a sickle, and not from the Latin neuter plural place name *Drepana*. In any case, the family name must be DREPANIDAE. *Drepanis* is the Greek δρεπάνις, found in Aristotle, with stem δρεπανιδ. I have no doubt that Gadow and those who have followed him took this as sufficient to establish DREPANIDIDAE as the family name. Unfortunately *drepanis* occurs in late Latin once (in Pliny, *Nat. Hist.*), with genitive *drepanis* and not, as it should be, *drepanidis*. My feeling is, however, that the Commission must confirm DREPANIDIDAE in view of the existence of DREPANIDAE in Insecta, where it is inevitably right. This can be defended on the grounds (1) of convenience, to keep the distinction from DREPANIDAE clear, (2) of the definite origin from the Greek δρεπάνις, with the undoubted stem δρεπανιδ as certified by Liddell & Scott's Greek Lexicon, and (3) of the constant usage in classical Latin whereby such stems were retained in forming the Latin genitive. Against this there is only the single use of the word by Pliny, and it may be argued that this is so unusual that there must be some explanation, unknown to us, for the irregularity. There is no case for the other alternative

DREPANIIDAE. It is now the rule (since E. Mayr wrote in 1943) that the grammatical stem ending in a vowel is not that to be used in forming family names, but that the termination -IDAE is simply substituted for the genitive termination (*Copenhagen Decisions zool. Nomencl.* : 34, paragraph 50(1), a)." Professor Grensted's help in thus clarifying the family-group name problem is gratefully acknowledged.

8. In view of the facts set out above, we ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers to suppress the generic name *Drepanis* Brisson, 1760 for the purposes both of the Law of Priority and of the Law of Homonymy ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :
   (a) *Drepanis* Temminck, 1820 (gender : feminine), type-species, by selection by G. R. Gray, 1840, *Certhia pacifica* Gmelin, 1788 (Class Aves) ;
   (b) *Riparia* Forster, 1817 (gender : feminine), type-species, by monotypy, *Hirundo riparia* Linnaeus, 1758 (Class Aves) ;
   (c) *Drepana* Schrank, 1802 (gender : feminine), type-species, by selection by Westwood, 1840, *Phalaena falcataria* Linnaeus, 1758 (Class Insecta, Order Lepidoptera) ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :
   (a) *pacifica* Gmelin, 1788, as published in the binomen *Certhia pacifica* (type-species of *Drepanis* Temminck, 1820) ;
   (b) *riparia* Linnaeus, 1758, as published in the binomen *Hirundo riparia* (type-species of *Riparia* Forster, 1817) ;
   (c) *falcataria* Linnaeus, 1758, as published in the binomen *Phalaena falcataria* (type-species of *Drepana* Schrank, 1802) ;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
   (a) *Drepanis* Brisson, 1760, as suppressed under the plenary powers in (1) above ;
   (b) *Platypteryx* Laspeyres, 1803, a junior objective synonym of *Drepana* Schrank, 1802
   (c) *Drepanis* Rafinesque, 1815, a *nomen nudum* ;
   (d) *Drepania* Hübner, [1819], an unjustified emendation of *Drepana* Schrank, 1802 ;

(5) to place the following names on the Official List of Family-Group Names in Zoology :
   (a) DREPANIDIDAE Gadow, 1891 (type-genus *Drepanis* Temminck, 1820) ;
   (b) DREPANIDAE Boisduval [Nov. 1828] (correction of DREPANULIDI) (type-genus *Drepana* Schrank, 1802) ;

(6) to place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :
   (a) DREPANIDAE Sushkin, 1829, an unjustified emendation of DREPANIDI-

DAE Gadow, 1891 (type-genus *Drepanis* Temminck, 1820) ;

(b) DREPANIIDAE Mayr, 1943, an unjustified emendation of DREPANIDIDAE Gadow, 1891 (type-genus *Drepanis* Temminck, 1820) ;

(c) DREPANULIDI Boisduval, [Nov. 1828], an incorrect original spelling of DREPANIDAE (type-genus *Drepana* Schrank, 1802) ;

(d) PLATYPTERICIDAE [sic] Stephens, 1831, invalid because the name of its type-genus (*Platypteryx* Laspeyres, 1803) is a junior objective synonym.

COMMENTS ON THE USE OF THE PLENARY POWERS TO SUPPRESS THE SPECIFIC NAME *SACCHARIVORA* PETERKIN, 1790 (PHALAENA). Z.N.(S.) 1315

(See this volume, pages 56–60.)

By F. D. Bennett and F. J. Simmonds

(*Commonwealth Institute of Biological Control, Trinidad, W.I.*)

I fully support Mr. Harold Box's proposal (*Bull. zool. Nomencl.* **17**, nos. 1–2, pp. 56–60, September 1959) that the use of the plenary powers to suppress the name *saccharivora* Peterkin, 1790 (*Phalaena*) and to place the generic name *Diatraea* Guilding, 1828, on the Official List of Generic Names in Zoology (Class Insecta, Order Lepidoptera) be invoked.

By C. E. Pemberton (*Experimental Station, Hawaiian Sugar Planters Association, Honolulu, Hawaii, U.S.A.*)

In the *Bulletin of Zoological Nomenclature*, Volume 17, Part 1–2, pages 56–60, dated 1 October 1959, appears a communication by Harold E. Box appealing for the retention of the well-established name, *Diatraea saccharalis* (F.) for one of the most notorious and destructive insect pests of sugar cane.

My colleagues and I most heartily approve the reasoning presented by Mr. Box in his communication and sincerely hope that this name will not be altered.

By J. R. Metcalfe (*Department of Science and Agriculture, Barbados, W.I.*)

With reference to the paper by H. E. Box which appeared in the *Bulletin of Zoological Nomenclature*, Vol. 17, Nos. 1–2, pp. 56–60, I would like to say that I fully support his suggestion that the sugar cane moth-borer should remain known as *Diatraea saccharalis* (F.) and that the name *saccharivora* Peterkin should be suppressed.

By E. L. Martin (*Bourne End, Bucks, England*)

I would like to give my full support for Mr. Box's application. It is not necessary for me to repeat the arguments for the suppression of the specific name *saccharivora* Peterkin : a name which would have remained unknown in the absence of Mr. Box's researches. It is highly desirable that *Diatraea saccharalis* Fabricius shall be the name accepted for this important sugar-cane borer.

PROPOSED ADDITION OF THE GENERIC NAME *ARCHAEOPTERYX* VON MEYER, 1861, AND THE SPECIFIC NAME *LITHOGRAPHICA* VON MEYER, 1861, AS PUBLISHED IN THE BINOMEN *ARCHAEOPTERYX LITHOGRAPHICA* TO THE OFFICIAL LISTS (CLASS AVES). Z.N.(S.) 1084

By W. E. Swinton (*British Museum (Natural History), London*)

The recent publication by Sir Gavin de Beer of an exhaustive study of the holotype of *Archaeopteryx lithographica* in the British Museum (Natural History) (de Beer, 1954 " *Archaeopteryx lithographica* : a study based upon the British Museum specimen ", 68 pp., 16 pls.) makes it desirable to place the generic and specific names of this species on the Official Lists. This is the more necessary because a number of invalid names were given to the species in the years following its discovery. The species is of special interest as the earliest known bird, and for this reason its name is extensively quoted both in taxonomic and evolutionary studies and in general works of an educational as well as a popular nature.

2. On 15 August 1861, Hermann von Meyer wrote a letter to Professor H. G. Bronn announcing the discovery of the impression of a feather in a slab of Upper Jurassic (Kimeridgian) lithographic limestone from Solnhofen, Bavaria, but without giving a name to the fossil. This letter was published in the *Neues Jahrbuch für Mineralogie* for 1861 : 561. In a further letter, dated 30 September 1861, and published on pp. 678–9 of the same volume (in Heft 6, received at the Geological Society of London between 1 November and 31 December 1861), von Meyer announced the receipt of a nearly complete skeleton and gave the name *Archaeopteryx lithographica* to the species represented by this skeleton and the isolated feather already recorded. It may be supposed that he had deferred naming the species until more complete evidence than a single feather was available, and thus that the skeleton (which is now in the British Museum) was the holotype. This is not clearly stated in the second of the two letters, but it is made plain that such was the case by a passage in von Meyer's monograph published in April 1862 (*Palaeontographica* **10** : 56). On p. v of the 1861 volume of the *Neues Jahrbuch* the generic name was spelt *Archaeopterix*, but this page forms part of the table of contents of the volume so that the change in the name ranks as an erroneous subsequent spelling, and as such is not available.

3. The next name to be considered is the generic name *Griphosaurus* Wagner (*Sitzungsber. bayer. Akad. Wiss.* München **2** : 146–154), based on the same specimen as that to which von Meyer had given the name *Archaeopteryx lithographica*. Wagner cited no specific name for the species which he described, but since only the unique holotype was then available, that species can be none other than the one named by von Meyer, so that *Griphosaurus* and *Archaeopteryx* are objective synonyms of one another. The volume containing Wagner's work is dated 1861 on the title-page, but the Heft in which his article

appeared contains references (: 429) to works known to have been published in 1862. The earliest known date for the receipt of this Heft in any library is 20 April 1862 (Berlin Akademie der Wissenschaften) and the name *Griphosaurus* must rank for priority as from that date. It is therefore invalid as a junior objective synonym of *Archaeopteryx* von Meyer, 1861. In 1933 Lambrecht (*Handb. Paleorn.* : 80) erroneously spelt this generic name as *Gryphosaurus*.

4. In 1862 (*Intellectual Observer* **2** : 313–319, pl. 1), H. Woodward, who used the name *Archaeopteryx lithographica*, stated that the British Museum specimen would shortly be described by Owen before the Royal Society under the name *Griphornis longicaudatus*, but added in a footnote that Owen had decided to retain the name already published by von Meyer. In the legend to his plate of that specimen, Woodward published three names. The first was *Archaeopteryx lithographica*, the second *Griphosaurus problematicus*, attributed to "A. Wagner, 1861. Sitzung der Münchner Akad. der Wiss.", and the third *Griphornis longicaudatus*, attributed to " Owen, Nov. 1862, Trans. Royal Society ". As already explained, the last of these names was abandoned by Owen even before Woodward's paper was published, and it was never in fact published by Owen. Similarly, Wagner never published the specific name *problematicus*. These new names must therefore be attributed to Woodward. They are objectively invalid, being based on the holotype of *Archaeopteryx lithographica* ; moreover, since they were published in a synonymy without independent descriptions, they are not even available. In 1933 (*loc. cit.* : 80) Lambrecht published the erroneous subsequent spelling *Gryphornis*.

5. In 1863 Owen (*Proc. roy. Soc. Lond.* **12** : 272–273) published the name *Archeopteryx* [sic] *macrurus* for the British Museum specimen. There is no evidence that the change in the spelling of the generic name was deliberate, so that the name ranks as an erroneous subsequent spelling of *Archaeopteryx*. The specific name is a junior objective synonym of *lithographica* von Meyer, 1861.

6. In 1921 (" Über das Becken, den Schultergürtel und einige andere Teile der Londoner *Archaeopteryx* " : 10) B. Petronievics published the new name *Archaeopteryx oweni* for the British Museum specimen. This specific name is another junior objective synonym of *lithographica* von Meyer, 1861.

7. Another specimen, found in 1877 near Eichstatt, was at first regarded as conspecific with the holotype of *Archaeopteryx lithographica* ; it is now in the Berlin Museum. In 1897 (*Sitzungsber. preuss. Akad. Wiss.* No. 2 : 829) Dames described it as a new species *Archaeopteryx siemensii*, and in 1917 Petronievics proposed the new genus *Archaeornis* for this species (*Proc. zool. Soc. Lond.* 1917 : 5, footnote). In my view these two specimens are indeed conspecific, so that neither the generic name *Archaeornis* nor the specific name *siemensii* is required. These names, however, are subjective, not objective synonyms of *Archaeopteryx lithographica* and remain available. No proposals are therefore made to the Commission concerning them.

8. *Archaeopteryx* is referred to the family ARCHAEOPTERYGIDAE T. H. Huxley, 1871 (*Man. Anat. Vert. Anim.* : 233) and this name should be placed on the Official List of Family-Group Names in Zoology.

9. In the light of the above considerations I ask the International Commission on Zoological Nomenclature :

(1) to place the generic name *Archaeopteryx* von Meyer, 1861 (gender : feminine), type-species, by monotypy, *Archaeopteryx lithographica* von Meyer, 1861, on the Official List of Generic Names in Zoology :

(2) to place the specific name *lithographica* von Meyer, 1861, as published in the binomen *Archaeopteryx lithographica* (type-species of *Archaeopteryx* von Meyer, 1861) on the Official List of Specific Names in Zoology ;

(3) to place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology :

  (a) *Griphosaurus* Wagner, (1862) and (b) *Griphornis* (Owen MS.) H. Woodward, 1862, both junior objective synonyms of *Archaeopteryx* von Meyer, 1861 ; (c) *Archaeopterix* (Anon), 1861 and (d) *Archeopteryx* Owen, 1863, both erroneous subsequent spellings of *Archaeopteryx* von Meyer, 1861 ; (e) *Gryphosaurus* Lambrecht, 1933, an erroneous subsequent spelling of *Griphosaurus* Wagner, (1862) ; (f) *Gryphornis* Lambrecht, 1933 an erroneous subsequent spelling of *Griphornis* (Owen MS.) H. Woodward, 1862 ;

(4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following junior objective synonyms of *lithographica* von Meyer, 1861, as published in the binomen *Archaeopteryx litho-lithographica* :

  (a) *problematicus* (Wagner MS.) H. Woodward, 1862, as published in the binomen *Griphosaurus problematicus* ;
  (b) *longicaudatus* (Owen MS.) H. Woodward, 1862, as published in the binomen *Griphornis longicaudatus* ;
  (c) *macrurus* Owen, 1863, as published in the binomen *Archeopteryx* (sic) *macrurus* ;
  (d) *oweni* B. Petronievics, 1921, as published in the binomen *Archaeopteryx oweni* ;

(5) to place the family-group name ARCHAEOPTERYGIDAE T. H. Huxley, 1871 (type-genus *Archaeopteryx* von Meyer, 1861) on the Official List of Family-Group Names in Zoology.

PROPOSED ADDITION TO THE OFFICAL LIST OF GENERIC NAMES IN ZOOLOGY OF THE GENERIC NAME *BEYRICHIA* M‘COY, 1846 (CLASS CRUSTACEA, ORDER OSTRACODA). Z.N.(S.)1117

By P. C. Sylvester-Bradley (*University of Leicester, England*) and
Stuart A. Levinson (*Humble Oil and Refining Co., Houston, Texas, U.S.A.*)

The purpose of the present application is to add to the appropriate Official Lists the name of the ostracod genus *Beyrichia* and that of its type-species, *B. kloedeni*, and thus, by specifying type-species and type-specimen, remove ambiguity which at present exists with regard to the identity of the type-species. *Beyrichia* is the type-genus of the best known and oldest established family and superfamily of Palaeozoic ostracods, and is in a forthcoming volume of the *Treatise of Invertebrate Paleontology* to be designated type-genus of the suborder Paleocopa.

2. The genus *Beyrichia* was established by M‘Coy (1846, *Syn. Sil. Fossils Ireland* : 57) for a single species which he named *B. klödeni*. At the time he introduced this specific name, M‘Coy clearly regarded it as synonymous with the previously named *Battus tuberculatus* Klöden, 1834 (*Verstein. Mark Brandenburg* : 112), for he specifically listed Klöden's name as synonym, and stated (*op. cit.* : 58) " The species I propose naming after its original discoverer."

3. Boll (1847, *Palaeontographica* **1** : 127) introduced the name *Beyrichia*, perhaps as a new name, perhaps after M‘Coy, with the single mentioned species *B. tuberculata* Klöden. There is doubt as to whether the generic name was intended as a new name or not, but from the following quotation, the former seems probable : " Den fälschlich so genannten, und schon so verschieden gedeuten *Battus tuberculatus* Klöden schliesse ich mit Beyrich von den Trilobiten aus . . . Ich schlage für dieselbe, da Beyrich diesem Körper zuerst seine richtige Stellung im System eingewiesen hat, den namen *Beyrichia* vor . . . " It is clear that M‘Coy and Boll had the same taxonomic concept in mind, but the fact remains that *Beyrichia* M‘Coy, 1846 and *Beyrichia* Boll, 1847 are genera based on different nominal species (see paragraph 12 below), and that the latter is to be regarded as a junior homonym of the former.

4. M‘Coy, 1851 (*Syst. Descr. brit. Palaeozoic Fossils* in Sedgwick, 1851–55, *Syn. Class. brit. Palaeozoic Rocks* : 135) later revised his opinion as to the identity of *Beyrichia kloedeni* and *Battus tuberculatus*, and in the synonymy of the former included the definite statement " not *B. tuberculatus* of Klöden ".

5. Ulrich, 1894 (*Minnesota Geol. nat. Hist. Surv. Rept.* **3**, chap. 7 (advance ed.) : 63z) introduced BEYRICHIIDAE as a family name.

6. Ulrich & Bassler, 1908 (*Proc. U.S. nat. Mus.* **35** : 283) stated : "As M‘Coy ranks '*Battus tuberculatus* ' of Kloeden as a synonym of his *Beyrichia kloedeni*, and as the two forms are distinguishable species, it is difficult to decide which of the two should rank as the genotype. However, as they are unquestionably congeneric, the point is of little consequence."

7. Ulrich & Bassler, 1923 (*Maryland geol. Surv., Amer. Silurian Form.*: **311**)

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made the definite statement under the genus *Beyrichia* : " Genotype.—*Beyrichia kloedeni* M'Coy ".

8. Straw, 1928 (*Mem. Proc. Manchester lit. phil. Soc.* **72** : 197) quoted *B. kloedeni* as " genotype " of *Beyrichia* and (: 198–203) redescribed the type-specimens of the species.

9. Swartz, 1936 (*J. Paleont.* **10** : 548) quoted *B. kloedeni* as " genotype " of *Beyrichia*, but on a later page (: 586), after referring to M'Coy's remark " This species I propose naming after its original discoverer, *Beyrichia kloedeni* " (para. 2 above), stated : " It seems clear, especially from the latter remark, that *Beyrichia tuberculatus* [*sic*] (Kloeden) not only can, but must be regarded as the genotype of *Beyrichia* ".

10. Henningsmoen, 1954 (*Norsk geol. Tidsskr.* **34** : 21, 22) disagreed with Swartz, and stated : " It appears therefore that *B. kloedeni* may still be regarded as the type-species ". He divided the genus *Beyrichia* into a number of subgenera, and placed *B. tuberculata* (Kloeden) in his new subgenus *Nodibeyrichia* (type-species, by original designation, *Beyrichia bronni* Reuter, 1885) (*op. cit.* : 26).

11. Kesling & Wagner, 1956 (*Contr. Mus. Paleont. Univ. Michigan* **13** : 39–42) set out the history of the nomenclature of *Beyrichia* and its type-species in some detail, and came to the following conclusions :

(1) " In as much as Klöden's name *Battus tuberculatus* was established in 1834, M'Coy's name for the same species, *Beyrichia klödeni*, was a junior synonym and stillborn at the time of publication. If our interpretation is correct, M'Coy invalidated for all time the trivial name *klödeni* for any species of Beyrichia " (*op cit.* : 42).

(2) " Henningsmoen . . . placed *Beyrichia tuberculata* (Klöden) in the subgenus *Nodibeyrichia*. If *B. tuberculata* is, as we maintain, the type-species of the genus *Beyrichia*, it should also be the type-species of the subgenus *Beyrichia*. As the subgenera of *Beyrichia* are defined by Henningsmoen, *B. tuberculata* has the characteristics of *Nodibeyrichia* and not those of the subgenus *Beyrichia*. We believe, therefore, that Henningsmoen's subgenus *Nodibeyrichia* should rightly be called the subgenus *Beyrichia*, and that Henningsmoen's subgenus *Beyrichia* should be renamed " (*op. cit.* : 43).

12. We cannot agree with Kesling & Wagner. In our view :

(1) *Beyrichia kloedeni*, when introduced, was a junior subjective synonym of *Battus tuberculatus* ; as such it was, and is, an available name ; junior subjective synonyms have never been regarded as " stillborn " ;

(2) M'Coy (1851, *loc. cit.*) and later authors ceased to regard the two species as synonymous, and from that time forth *Beyrichia kloedeni* became not only an available name, but the valid name of the species described by M'Coy from Ireland ;

(3) The genus *Beyrichia* is to be regarded as monotypic, with *Beyrichia kloedeni* M'Coy as the type-species, in terms of Declaration 26 (*Ops. Decls. Int. Comm. zool. Nomencl.* **13** : xxxvii–l, 1956), of which paragraph (2) states, among other things : " Where an author, when publishing a new generic name, cites by name only one species as

belonging to the genus so named, the nominal species so cited is to be accepted as the type-species of the genus in question, irrespective of whether the author concerned . . . cited in the synonymy of that species the name of another, or the names of other, nominal species."

13. The circumstances outlined in the preceding paragraphs show that disagreement as to the application of the Rules to the present case has always existed. We feel, especially in view of the fact that the two species in question are now referred by some to different subgenera, that it has become essential to seek an authoritative ruling from the Commission as to the correct interpretation, which we believe to be that given in paragraph 12(3) above.

14. So far as we are aware, there has as yet been no valid designation of lectotypes for either *Battus tuberculatus* or *Beyrichia kloedeni*. We believe that it is desirable in the present case to render the identity of these species objective, and accordingly make formal designations as under :

(1) We designate as lectotype of *Battus tuberculatus* Klöden, 1834, the specimen which formed the original of pl. 1, fig. 21 of Klöden (1834, *op. cit.*).

(2) We designate as lectotype of *Beyrichia kloedeni* M'Coy, 1846, the specimen figured by Straw (*op. cit.*, pl. 1, fig. 1) from Boocaun, Co. Galway, Eire, in the Griffiths Collection, National Museum of Eire, Dublin. It seems to us that the evidence quoted by Straw (*op. cit.* : 198) is sufficient to warrant classing this specimen as a syntype, and not merely as a topotype. Straw states : " M'Coy's type-specimens were obtained from the sandstones of Boocaun . . . and formed part of the collection of the late Sir Richard Griffiths. Through the kindness of A. W. Stelfox, Esq., of the Dublin Museum, I have been able to borrow from that Institution, a number of specimens of *B. kloedeni* belonging to the Griffiths collection and from the type-locality of Boocaun . . . It has not been possible to identify with certainty M'Coy's types from these specimens, which must, therefore, be regarded as topotypes." Although the specimen figured by Straw may not have been the same as the one figured by M'Coy, it seems almost certain that it will have been examined by M'Coy together with the other specimens in the Griffiths Collection, and can therefore rank as a syntype, and as such is available for selection as lectotype.

15. We therefore formally ask the International Commission on Zoological Nomenclature :

(1) to place the generic name *Beyrichia* M'Coy, 1846 (gender : feminine), type-species, by monotypy, *Beyrichia kloedeni* M'Coy, 1846 (as interpreted by the lectotype selected in paragraph 14(2) above) on the Official List of Generic Names in Zoology ;

(2) to place the following specific names on the Official List of Specific Names in Zoology :

  (a) *kloedeni* M'Coy, 1846, as published in the binomen *Beyrichia kloedeni*, and as interpreted by the lectotype selected in paragraph 14(2) above (type-species of *Beyrichia* M'Coy, 1846) ;

  (b) *tuberculatus* Klöden, 1834, as published in the binomen *Battus* *tuberculatus*, and as interpreted by the lectotype selected in paragraph 14(1) above;

(3) to place the family-name BEYRICHIIDAE Ulrich, 1894 (type-genus *Beyrichia* M'Coy, 1846) on the Official List of Family-Group Names in Zoology.

(4) to place the generic name *Beyrichia* Boll, 1847 (a junior homonym of *Beyrichia* M'Coy, 1846) on the Official Index of Rejected and Invalid Generic Names in Zoology.

COMMENT ON THE USE OF THE PLENARY POWERS TO SUPPRESS THE SPECIFIC NAME *SACCHARIVORA* PETERKIN, 1790 (PHALAENA). Z.N.(S.) 1315

(See this volume, pages 56–60.)

By J. H. Kuchlein (*Laboratorium voor Toegepaste Entomologie der Universiteit van Amsterdam*)

I am very much in favour of the suspension of the Rules to allow the use of the specific name *saccharalis* Fabricius, 1794, as proposed by Mr. Box. The name *saccharivora* Peterkin, 1790 has never been used after its first appearance in a " rare and obscure " work.

There exists a considerable literature on this insect, especially in the field of applied entomology, and a change of the name would needlessly lead to confusion.

By L. C. Scaramuzza (*Compania Azucarera Atlantica del Golfo, Central Mercedes, Matanzas, Cuba*)

I am a practical economic entomologist, especialized in the biological control of *Diatraea saccharalis* F., with more than thirty years of active practice and over 45 papers using the above-mentioned name, and consequently I do not consider it advisable to alter the name to *D. saccharivora* (Peterkin) (based on *Phalaena saccharivora* Peterkin, 1790), even though the Law of Priority requires this change.

Therefore, I fully support Mr. Harold E. Box's request to the International Commission for the permanent conservation of the name *Diatraea saccharalis* F.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE GENUS *SPHAEROCORYPHE* ANGELIN, 1854 (CLASS TRILOBITA) IN HARMONY WITH ACCEPTED USE.

Z.N.(S.) 1152

By C. J. Stubblefield (*Geological Survey & Museum, London*) and
G. Henningsmoen (*Paleontologisk Museum, Oslo*)

The generic names *Sphaerometopus* and *Sphaerocoryphe* were introduced for one and the same trilobite genus by Angelin in the second fascicle of *Palaeontologia Scandinavica*, Pt. 1, Iconographia crustaceorum formationis transitionis, 1854 (: I–X, 21–92, pls. 25–42). *Sphaerometopus* was mentioned on page VI, but was not accompanied by a description, definition, or indication, and is therefore a *nomen nudum*. The genus *Sphaerocoryphe* was established on page 65, and two new species were referred to it, *Sphaerocoryphe dentata* (: 66, pl. 34, fig. 6) and *S. granulata* (: 76, pl. 39, fig. 4).

2. In the "Addenda et Corrigenda" printed in the same fascicle, the following statement is given : " *Pag.* VI. *lin.* 21 *loco* Sphaerometopus *lege* : Sphaerocoryphe ". Thus *Sphaerometopus*, in addition to being a *nomen nudum*, was rejected in favour of *Sphaerocoryphe* in the original publication and ranks as an incorrect original spelling.

3. According to Westergård, 1910 (*Kungl. fysiogr. Sällsk. Handl.* N.F. **21**(2) : 5, footnote 2 ; also *Lunds Univ. Årsskr.* N.F. Avd. 2, **6**(2)) there exist " two somewhat different editions " of pages 65–66 of *Pal. Scand.* In one version, on pages 65–66, the genus is named *Sphaerometopus* and the species is named *Sphaerometopus dentatus* (cf. Westergård, 1910 : 44–45). It is evident that during the preparation of his work, Angelin changed the name of the genus from *Sphaerometopus* to *Sphaerocoryphe*, and that some copies have been distributed with the uncorrected version of pages 65–66, showing the subsequently rejected name *Sphaerometopus*.

4. In 1878, G. Lindström edited a new and revised version of Angelin's work including some of the pages and plates " *ab auctore rejecta* ". This 1878 publication retained the spelling *Sphaerometopus* on page VI, and *Sphaerocoryphe* on pages 65, 66 and 76 ; it also included the Addenda and Corrigenda page correcting the spelling on page VI.

5. The name *Sphaerocoryphe* has been used by all authors dealing with Angelin's genus both before and after Lindström's publication.

6. S. A. Miller, 1889 (*N. Amer. Geol. Palaeont. for the use of Students* : 567) designated *S. granulata* as the type-species of *Sphaerocoryphe*, and this is the first valid type-designation. However, *S. granulata* was assigned to *Hemisphaerocoryphe* Reed, 1896 by Elsa Warburg, 1925 (*Bull. geol. Inst. Upsala* **17** : 388). Thus if Miller's designation is accepted, *Hemisphaerocoryphe* would become a junior subjective synonym of *Sphaerocoryphe*, and a new generic name would be required for *S. dentata* and its allies, hitherto uniformly referred to *Sphaerocoryphe*. It would therefore be in harmony with past and current usage to designate *S. dentata* as the type-species of *Sphaerocoryphe*.

***Bull. zool. Nomencl.* Vol. 17, pts. 6–8. April 1960.**

7. The genus *Sphaerocoryphe* is currently referred to the family CHEIRURIDAE, subfamily DEIPHONINAE, and the name has never been used as the basis of a family-group name.

8. We therefore ask the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to set aside all designations of type-species for the genus *Sphaerocoryphe* Angelin, 1854, made prior to the ruling now asked for, and having done so to designate *Sphaerocoryphe dentata* Angelin, 1854, as the type-species of that genus ;

(2) to place the generic name *Sphaerocoryphe* Angelin, 1854 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Sphaerocoryphe dentata* Angelin, 1854, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *dentata* Angelin, 1854, as published in the binomen *Sphaerocoryphe dentata* (type-species of *Sphaerocoryphe* Angelin, 1854) on the Official List of Specific Names in Zoology ;

(4) to place the generic name *Sphaerometopus* Angelin, 1854 (a *nomen nudum*) on the Official Index of Rejected and Invalid Generic Names in Zoology.

REQUEST FOR A RULING AS TO WHETHER *LICHAS ARANEA* HOLZAPFEL, 1895, IS TO BE TREATED AS A JUNIOR PRIMARY HOMONYM OF *LICHAS ARANEUS* LINDSTRÖM, 1885 (CLASS TRILOBITA). Z.N.(S)1155

By R. P. Tripp (*Sevenoaks, Kent*)

The generic name *Lichas* Dalman, 1827 (*K. svensk. Vetensk. Akad. Handl.* **1826** : 287) is generally regarded as of masculine gender, and may thus be presumed to be derived from the name of the squire, or servant, of Hercules. Certain authors, however, (e.g. Hawle & Corda, 1847, *Prodr. Monogr. böhm. Tril.* : 141 ; Barrande, 1852, *Syst. sil. centre Bohême* : 596–609) have treated it as feminine, and it should be noted that there is a classical Greek noun λιχας meaning the space between the thumb and the forefinger, which is feminine.

2. The specific name *araneus* Lindström, 1885 (*K. Vetensk. Akad. Förh. Öfvers.* **6** : 58), as published in the binomen *Lichas araneus*, is always regarded as an adjective agreeing in gender with *Lichas* if this is taken to be masculine. If the generic name is feminine, however, then the specific name would have to be changed to *aranea*. It would then become a senior primary homonym of *Lichas aranea* Holzapfel, 1895 (*K. preuss. geol. Landes*, **16** : 32). Holzapfel, however, either regarded *Lichas* as masculine (as when he used the binomen *Lichas granulosus* Roemer), or was inconsistent in his use of genders. His specific name can be regarded as a noun in apposition to the generic name, and in that case it would not fall as a junior primary homonym of *Lichas araneus* Lindström. The question is further complicated by the fact that classical Latin contains both the masculine noun *araneus* and the feminine noun *aranea*, both meaning " spider ", while the adjective *araneus—a—um* is found in late Latin (Pliny). Professor L. W. Grensted, consulting classical adviser to the Commission, regards *araneus* Lindström as an adjective, and *aranea* Holzapfel as a noun in apposition, since this is the most obvious reading of the Latin words, and he points out that homonymy would certainly result if *Lichas* (masculine) were to be replaced by a feminine generic name. Přibyl & Erben, 1952 (*Paläont. Zeitsch.* **26** : 168) changed Holzapfel's *aranea* to *araneus*, presumably because they regarded it as an adjective, and the generic name as masculine.

3. *Lichas araneus* Lindström, 1885, is now referred to the genus *Arctinurus* Castelnau, 1843. *L. aranea* Holzapfel, 1895, is the type-species, by monotypy, of *Radiolichas* Reed, 1923 (*Geol. Mag.*, **60** : 455), so that there is little risk of confusion at the present time. Nevertheless, it seems desirable, for the reason explained in the next paragraph, to seek a ruling on the relative status of the two names under the Law of Homonymy.

4. If the Commission rules that the two specific names are to be treated as homonyms, then a replacement-name will be needed for *Lichas aranea* Holzapfel, 1895, the junior name involved, since no junior synonym exists. Such a replacement-name was in fact introduced by me in 1957 (*Geol. Mag.* **94** : 118)

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as "*Radiolichas araneiformis* nom. nov.," pending the Commission's decision on the present application. If the Commission rules that the two specific names are not homonyms, then *Radiolichas araneiformis* Tripp, 1957, falls as a junior objective synonym of *Radiolichas aranea* (Holzapfel, 1895). It is clearly important to clarify the status of the replacement-name as soon as possible.

5. I therefore ask the International Commission on Zoological Nomenclature to adopt one of the following alternatives. Alternative A sets out the consequences of a decision that *Lichas aranea* Holzapfel is not a junior homonym of *Lichas araneus* Lindström, and Alternative B sets out the consequences of the opposite decision.

ALTERNATIVE A

(1) to rule that the generic names *Lichas* Dalman, 1827, and *Radiolichas* Reed, 1924, are masculine in gender, in accordance with general use ;

(2) to place the generic name *Radiolichas* Reed, 1923 (gender : masculine), type-species, by monotypy, *Lichas aranea* Holzapfel, 1895, on the Official List of Generic Names in Zoology ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *araneus* Lindström, 1885, as published in the binomen *Lichas araneus* ;
  (b) *aranea* Holzapfel, 1895, as published in the binomen *Lichas aranea* (type-species of *Radiolichas* Reed, 1923) ;

(4) to place the specific name *araneiformis* Tripp, 1957, as published in the binomen *Radiolichas araneiformis*, (a junior objective synonym of *Lichas aranea* Holzapfel, 1895) on the Official Index of Rejected and Invalid Specific Names in Zoology.

ALTERNATIVE B

(1) as (1) in Alternative A above ;

(2) to place the specific name *aranea* Holzapfel, 1895, as published in the binomen *Lichas aranea*, (hereby ruled to be treated as a junior primary homonym of *Lichas araneus* Lindström, 1885) on the Official Index of Rejected and Invalid Specific Names in Zoology ;

(3) to place the generic name *Radiolichas* Reed, 1923 (gender : masculine), type-species, by monotypy, through *Lichas aranea* Holzapfel, 1895, *Radiolichas araneiformis* Tripp, 1959, on the Official List of Generic Names in Zoology ;

(4) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *araneus* Lindström, 1885, as published in the binomen *Lichas araneus* ;
  (b) *araneiformis* Tripp, 1957, as published in the binomen *Radiolichas araneiformis* (type-species of *Radiolichas* Reed, 1923).

PROPOSED ADDITION OF CERTAIN GENERIC AND SPECIFIC NAMES IN THE FAMILY PHASMATIDAE (CLASS INSECTA, ORDER PHASMATODEA) TO THE OFFICAL LISTS AND INDEXES. Z.N.(S.) 1167

By K. H. L. Key (*Division of Entomology, Commonwealth Scientific and Industrial Research Organisation, Canberra, Australia*)

Three species of Australian phasmatids are of economic importance as defoliators of eucalyptus trees. Papers on the biology of these species have been published or are in course of publication and more may be expected to be published in the future. Thus the workers concerned have an interest in the continued stability of the nomenclature of these species. A study of the literature reveals that considerable confusion exists in the nomenclature of the genera concerned and some of their near relatives. This can be resolved by a strict application of the Rules and of the decisions in regard thereto adopted by the Paris (1948) and Copenhagen (1953) Zoological Congresses. In the present paper, the International Commission is asked to endorse this application of the Rules by placing the relevant names on the Official Lists and Indexes as specified in paragraph 11 below.

Genus *Podacanthus* Gray

2. The genus *Podacanthus* Gray, 1833 (*Ent. Aust.* **1** : 17) presents no difficulty. Its type species by monotypy is *Podacanthus typhon* Gray, 1833 (*ibid.* : 17, pl. 2, fig. 1). In the British Museum (Natural History) there is a female of this species labelled " Sydney, New South Wales " and bearing the museum registration number 40.4.2.1304. The museum register contains the following entry against this number : " Phasma. New Holland. Bought at Mr. Children's sale ". There is every probability, therefore, that this is the female figured by Gray, which he stated was in the collection of J. G. Children and came from Port Jackson (i.e. Sydney). I hereby select this specimen to be the lectotype and have labelled it as such. *P. wilkinsoni* Macleay (W.J.), 1881 (*Proc. linn. Soc. N.S.W.* **6** : 538)—not 1882 as commonly cited (see Musgrave, 1932, *Bibl. Aust. Ent.* : 213)—is an economic species. However, Macleay employs an erroneous subsequent spelling for the name *Podacanthus*, which he gives as *Podocanthus*. Macleay's original material is preserved in the Macleay Museum, University of Sydney. It consists of two males and a female, all of which have been dried from spirit, as stated by the author. One of the males bears the label " *Podocanthus Wilkinsoni*, Macl. Binda Caves. March 1881 " in the handwriting of George Masters, Macleay's preparator. I have selected this specimen to be the lectotype and labelled it as such. The other two specimens were unlabelled but closely associated with the labelled one (one on each side of it). I have labelled them " Original material of Macleay, 1881 ".

Genus *Didymuria* Kirby

3. Gray (1883, *Ent. Aust.* **1** : 26) employed the generic name *Diura* for a group of Australian phasmatids. However, this name was preoccupied

by *Diura* Billberg, 1820 (*Enum. Ins. Mus. Billberg* : 96), in the Neuroptera. Kirby, 1904 (*Syn. Cat. Orthopt.* **1** : 381) proposed the name *Didymuria* as a *nom. nov.* for *Diura* Gray and designated as its type species *Phasma violescens* Leach, 1814 (*Zool. Miscell.* **1** : 26, pl. 9), one of the species originally included in *Diura* Gray. This species has been cited under the erroneous subsequent spelling of *violascens* by Gray (1833, *Ent. Aust.* **1** : 21, 27, pl. 6, fig. 1) and most later authors (but not Kirby, 1904) in combination with *Diura* Gray (*non* Billberg), *Acrophylla* Gray and *Cyphocrania* Burm. For the present it should be interpreted by reference to Leach's plate, but the designation of a neotype would be desirable when the genus is revised. The original material appears to be lost. *Diura roseipennis* Gray (*ibid.* **1** : 22, pl. 7, fig. 2) has been subjectively identified as the female of *violescens*. Its alleged holotype is in the British Museum, but there is in fact nothing to identify it as Gray material. *Didymuria violescens* is an economic species.

Genera *Ctenomorpha* Gray, *Acrophylla* Gray, *Ctenomorphodes* Karny

4. The generic name *Ctenomorpha* was published by Gray, 1833 (*Ent. Aust.* **1** : 16, 27) with two included species, *marginipennis* Gray and *spinicollis* Gray. The first selection of a type species was by Kirby (1904, *Syn. Cat. Orthopt.* **1** : 388) who selected *Ctenomorpha marginipennis* Gray, 1833 (*Ent. Aust.* **1** : 16, pl. 1, fig. 2). In addition to this spelling, Gray used the form *marginipenne* in the same publication (: 27). He was himself the first subsequent user of the name (Gray, 1835, *Syn. Phasm.* : 41), when he selected the spelling *marginipennis*. The female of Gray's *Diura chronus*, described in the same publication (: 20, 26, pl. 5, fig. 2) and on the same date as *Ctenomorpha marginipennis*, has been regarded as conspecific with the latter. The synonymy was first proposed by Westwood (1859, *Cat. Phasm.* : 114), who, acting as first reviser, adopted *chronus* (in combination with *Acrophylla* Gray) in preference to *marginipennis* as the name for this species, an action which must be endorsed under the Copenhagen Decisions. In accordance with common practice in this group of phasmatids, the name *chronus*, which Gray wrote with a capital " C ", is apparently based on the name of a Greek mythological personage, in this case *Κρόνος*, the father of Zeus. This should be latinised " Cronus ", not " Chronus ". However, the spelling of *chronus* has never been called in question, and no emendation of it is called for under the Copenhagen Decisions, since (1) there is no clear evidence, in the original publication, that it is in fact based on the name of the god, and (2) errors of transliteration are exempted from emendation. The synonymy of *marginipennis* and *chronus* is likely to be accepted on taxonomic grounds only so long as the former is interpreted on the male and the latter on the female. These are the sexes figured respectively by Gray, but that author also described in each case what he took to be the opposite sex. In the interests of stability, and since all the original material appears to be lost, I hereby select the specimen figured as pl. 1, fig. 2 by Gray (1833, *Ent. Aust.* **1**) to be the lectotype of *Ctenomorpha marginipennis* Gray and that figured as pl. 5, fig. 2 in the same publication to be the lectotype of *Diura chronus* Gray.

5. The genus *Acrophylla* was established by Gray (1835, *Syn. Phasm.* : 39)

with several included species, one of which was *Phasma titan* Macleay (W.S.), 1826 (*in* King, *Surv. Coasts Aust.* 2 : 454)—published in April 1826, not in 1827 as often cited : see Musgrave, 1932, *Bibl. Aust. Ent.* : 214. This species was the first to be selected as the type species of *Acrophylla* Gray, namely by Karny, 1923 (*Treubia* **3** : 240), not by Kirby, 1904, as stated by Karny.

6. Redtenbacher, 1908 (*in* Brunner & Redtenbacher, *Insektenfam. Phasm.*) ignored Kirby's type selections and, without citing any type species himself, referred *Diura chronus* and, as a synonym, *Ctenomorpha marginipennis* (type species of *Ctenomorpha* Gray) to the genus *Acrophylla*, and *Phasma titan* (type species of *Acrophylla* Gray) to the genus *Vetilia* Stål. In the genus *Ctenomorpha* he placed four species, of which one was an originally included species, one was *Phasma* (*Diura*) *briareus* Gray, 1834, and another " *Ctenomorpha tessellata* Gray, 1835 " (see below, paragraph 7). The limits of *Acrophylla* (*sensu* Redt. *non* Gray) are essentially those of *Ctenomorpha* Gray and quite different from those of *Acrophylla* Gray. On the other hand, *Ctenomorpha* (*sensu* Redt., *op. cit.* : 458) has been regarded by later authors as representing a distinct taxon ; the name *Ctenomorphodes* Karny, 1923 (*Treubia* **3** : 240) has been proposed as a new name for this unit, with *Phasma* (*Diura*) *briareus* Gray, 1834 (*Trans. ent. Soc. Lond.* **1** : 45) as type species by original designation.

7. One of the species referable to *Ctenomorphodes* Karny is the species described by Gray (1835, *Syn. Phasm.* : 44) as *Ctenomorpha tessulata*. Westwood, 1859 (*Cat. Phasm.* : 115) and all subsequent authors have cited this name as " *tessellata* ". While it is very probable that in naming his species Gray wished to refer to the tessellated pattern of the wing, there is no evidence in the original publication that this was his intention, and he does not use the word " tessellated " in his description of that pattern. Thus " *tessulata* " is a valid original spelling in the sense of the Copenhagen Decisions and must be preserved. Although later authors have uniformly employed the spelling " *tessellata* ", the number of papers actually involved does not exceed about half-a-dozen ; there is thus no occasion for the Commission to consider validating this erroneous subsequent spelling under the Plenary Powers. Furthermore, the Rev. Professor L. W. Grensted (Consulting Classical Advisor to the Commission) has reported that the generic name *Ctenomorphodes* is masculine. The species, which is of economic importance, should therefore be cited as *Ctenomorphodes tessulatus*.

Family-group Names

8. The genus *Diura* Gray, 1833 (*non* Billberg) has been used by Redtenbacher, 1908 (*in* Brunner & Redtenbacher, *Insektenfam. Phasm.* : 379) as the basis for the " sectio " DIURAE of his " tribus " PHIBALOSOMINI. Since, as already indicated, *Diura* Gray has been replaced by *Didymuria* Kirby, 1904, it is necessary under the Copenhagen Decisions to replace DIURAE Redt. by a family-group name based on the latter generic name. However, Günther (1953, *Beitr. Ent.* **3** : 548, 553) has erected a subfamily PODACANTHINAE on the genus *Podacanthus* Gray, 1833, and given to it the limits " die Redtenbacher (1908) seinen ' Diurae ' gab ", *Didymuria* being one of the included genera. The name PODACANTHINAE has been used in important recent works, whereas

DIURAE never had general currency. Thus a replacement for DIURAE Redt. would be required only by workers who placed *Didymuria* in a different family-group taxon from *Podacanthus*.

9. The genus *Acrophylla* Gray has similarly been used as the basis for the tribe ACROPHYLLINI Redt., 1908 (*in* Brunner & Redtenbacher, *Insektenfam. Phasm.* : 436). However, Redtenbacher misidentified Gray's genus (see paragraph 6 above). The International Commission is asked to rule to this effect, whereupon, under Declaration 28 (*Ops. Decls. Int. Comm. zool. Nomencl.* **14** : xiii), the name ACROPHYLLINI will be automatically rejected. *Acrophylla* Gray, as well as *Ctenomorpha* Gray (corresponding to Redtenbacher's interpretation of *Acrophylla*) are currently placed in the nominate subfamily and tribe of the family " PHASMIDAE " Gray, 1835 (*Syn. Phasm.* : 1–44) based on the genus *Phasma* Lichtenstein, 1796 (*Cat. Mus. Zool. Hamb.* **3** : 77). The selection by Latreille, 1810 (*Consid. gen. Anim. Crust. Arach. Ins.* : 246, 433) of " *Mantis rossia* Fabr." (1793, *Ent. syst.* **2** : 13) (i.e. *Mantis rossia* Rossi, 1790, *Fauna Etrusca* **1** : 259 ; *ibid.* **2** : pl. 8, fig. 1)[1] to be the type species of *Phasma* Lichtenstein, 1796 is invalid, not for the reasons given by Kirby (1904, *Ann. Mag. nat. Hist.* (7) **13** : 439), but because this was not an originally included species. It appears that Kirby may have confused this name with *Mantis rosea* Fabricius, 1793 (*Ent. syst.* **2** : 16), which was in Lichtenstein's list. Although, further, Kirby's reasons for regarding *Phasma empusa* Licht., 1796 as the type species are not valid, he has in fact validly selected that species, which must be accepted as the type species of *Phasma*.

10. The family-name PHASMIDAE Gray is defectively formed and under the Copenhagen Decisions should be automatically corrected to the form " PHASMATIDAE " Gray, 1835. This spelling has been used by a number of authors from at least as early as 1881 (Macleay, *Proc. linn. Soc. N.S.W.* **6** : 536) right up to recent years, although " PHASMIDAE " has probably predominated. I do not see sufficient reason for seeking the use of the Plenary Powers to validate " PHASMIDAE ".

11. For the reasons detailed above, I ask the International Commission on Zoological Nomenclature :—

(1) to place the following names on the Official List of Generic Names in Zoology :
  - (a) *Podacanthus* Gray, 1833 (gender : masculine), type species, by monotypy, *Podacanthus typhon* Gray, 1833, as defined by the lectotype selected in paragraph 2 above ;
  - (b) *Didymuria* Kirby, 1904 (gender : feminine), type species, by original designation, *Phasma violescens* Leach, 1814 ;
  - (c) *Ctenomorpha* Gray, 1833 (gender : feminine), type species, by selection by Kirby, 1904, *Ctenomorpha marginipennis* Gray, 1833, as defined by the lectotype selected in paragraph 4 above ;
  - (d) *Acrophylla* Gray, 1833 (gender : feminine), type species by selection by Karny, 1923, *Phasma titan* Macleay, 1826 ;

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[1] Baccetti (*Mem. Soc. ent. Ital.* 36 : 61-64 (1957)) has shown that this name was first published by Rossi two years earlier than has generally been supposed (*Mem. mat. fis. Soc. ital.* 4 : 134 (1788)), in the combination *Pseudomantes rossia.*

- (e) *Ctenomorphodes* Karny, 1923 (gender : masculine), type species, by original designation, *Phasma* (*Diura*) *briareus* Gray, 1834 ;
- (f) *Phasma* Lichtenstein, 1796 (gender : neuter), type species, by selection by Kirby, 1904, *Phasma empusa* Lichtenstein, 1796 ;

(2) to place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology :

- (a) *Podocanthus* Macleay, 1881 (an erroneous subsequent spelling of *Podacanthus* Gray, 1833) ;
- (b) *Diura* Gray, 1833 (a junior homonym of *Diura* Billberg, 1820) ;

(3) to place the following names on the Official List of Specific Names in Zoology :

- (a) *typhon* Gray, 1833, as published in the binomen *Podacanthus typhon*, and as defined by the lectotype selected in paragraph 2 above (type species of *Podacanthus* Gray, 1833) ;
- (b) *wilkinsoni* Macleay (W.J.), 1881, as published in the binomen *Podacanthus wilkinsoni*, and as defined by the lectotype selected in paragraph 2 above ;
- (c) *violescens* Leach, 1814, as published in the binomen *Phasma violescens* (type species of *Didymuria* Kirby, 1904) ;
- (d) *chronus* Gray, 1833, as published in the binomen *Diura chronus*, and as defined by the lectotype selected in paragraph 4 above ;
- (e) *titan* Macleay (W.S.), 1826, as published in the binomen *Phasma titan* (type species of *Acrophylla* Gray, 1835) ;
- (f) *briareus* Gray, 1834, as published in the binomen *Phasma* (*Diura*) *briareus* (type species of *Ctenomorphodes* Karny, 1823) ;
- (g) *tessulata* Gray, 1835, as published in the binomen *Ctenomorpha tessulata* ;
- (h) *empusa* Lichtenstein, 1796, as published in the binomen *Phasma empusa* (type species of *Phasma* Lichtenstein, 1796) ;

(4) to place the following names on the Official Index of Rejected and Invalid Specific Names in Zoology :

- (a) *violascens* Gray, 1833, as published in the binomen *Diura violascens* (and later usages in combination with *Acrophylla* Gray, *Cyphocrania* Burm., *Didymuria* Kirby, etc.) (an erroneous subsequent spelling of *violescens* Leach, 1814, as published in the binomen *Phasma violescens*);
- (b) *tessellata* Westwood, 1859, as published in the binomen *Acrophylla tessellata* (and later uses in combination with *Acrophylla* Gray and *Ctenomorpha* Gray) (an erroneous subsequent spelling of *tessulata* Gray, 1835, as published in the binomen *Ctenomorpha tessulata*) ;

(5) to rule that Redtenbacher, 1908, misdetermined the genus *Acrophylla* Gray, in proposing the family-group name ACROPHYLLINI ;

(6) to place the following names on the Official List of Family-group Names in Zoology :

- (a) PODACANTHINAE Günther, 1953 (type genus *Podacanthus* Gray, 1833) ;

    - (b) PHASMATIDAE (correction of PHASMIDAE) Gray, 1835 (type genus *Phasma* Lichtenstein, 1796);
- (7) to place the following names on the Official Index of Rejected and Invalid Family-group Names in Zoology:
    - (a) DIURAE Redtenbacher, 1908 (type genus *Diura* Gray, 1833), invalid because the name of the type genus is a junior homonym of *Diura* Billberg, 1820;
    - (b) ACROPHYLLINI Redtenbacher, 1908 (type genus *Acrophylla* Gray, 1833), invalid under Declaration 28 by the ruling requested under (5) above;
    - (c) PHASMIDAE Gray, 1833 (an invalid original spelling of PHASMATIDAE).

COMMENTS ON THE PROPOSED SUPPRESSION UNDER THE PLENARY POWERS OF THE SPECIFIC NAME *SACCHARIVORA* PETERKIN, 1790 (PHALAENA). Z.N.(S.) 1315

(See this volume, pages 56–60.)

By M. H. Breese (*Imperial College of Tropical Agriculture, Trinidad, W.I.*)

I have received a Separate of the paper published by Mr. Harold E. Box in Nos. 1 and 2 of Volume 17 of the *Bulletin of Zoological Nomenclature.* I have further had the opportunity of discussing the subject matter with the author and I strongly support his application to conserve the well-established name of *Diatraea saccharalis* (F.), and the requests made in paragraph 19 of his paper.

By R. H. Zwaluwenberg (*Santa Rosa, California, U.S.A.*)

Mr. Harold E. Box's plea to add to the Official List of Specific Names in Zoology, that of *saccharalis* Fabricius, 1794 (genus *Diatraea*) for the moth borer of sugar-cane, merits favourable consideration. This name has been in general use for over fifty years, for an insect of great economic importance, and is the subject of a voluminous bibliography.

To approve the name *sacchorivora* Peterkin, 1790, a nomen so obscure as to be all but unknown, would create unfortunate confusion concerning the prime insect enemy of sugar-cane in the Americas.

By F. Fernández, P. Guagliumi, W. Szumlowski, N. J. Angeles, C. J. Rosales, R. Lichy (*Maracay, Venezuela*)

We have received from our friend Harold E. Box a reprint of the application published in *Bull. zool. Nomencl.* **17** : 56–60; and we wish to record that we were not in favour of altering the well-known name, *Diatraea saccharalis* (Fabricius) for the sugar-cane borer.

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE FAMILIAR USAGE OF THE GENERIC NAME *TANYTARSUS* VAN DER WULP, 1874 (CLASS INSECTA, ORDER DIPTERA). Z.N.(S.) 1245

By Paul Freeman (*British Museum (Natural History) London*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to validate the familiar usage of the well-known generic name *Tanytarsus* van der Wulp, 1874, by suppressing the type-fixation of Coquillett (1910) in favour of that of Edwards (1929). The details of this case are given below.

2. The genus *Tanytarsus* was described by van der Wulp in 1874 (*Tijdschr. Ent.* **17** : 134) with twelve included species, only two of which, *Chironomus punctipes* Wiedemann, 1817 (*Zoologisches Magazin* **1**(1) : 65) and *Chironomus signatus* van der Wulp, 1858 (*Tijdschr. Ent.* **2**(3) : 169), are relevant to this discussion. Van der Wulp did not designate a type-species for the genus.

3. In 1909, Kieffer (*Bull. Soc. Hist. nat. Metz* **26** : 49) restricted the genus *Tanytarsus* to those species without pulvilli, which include *signatus* van der Wulp but not *punctipes* Wiedemann. It is in this sense that *Tanytarsus* has always been employed until 1945. Kieffer did not designate a type-species for the restricted genus.

4. A type-species was first designated for *Tanytarsus* van der Wulp by Coquillett in 1910 (*Proc. U.S. nat. Mus.* **37** : 612). Unfortunately he chose *punctipes* Wiedemann as the type-species, which possesses pulvilli and does not fall into the group restricted as *Tanytarsus* by Kieffer in 1909. I have been able to examine the type-series of *punctipes* Wied. through the kindness of Dr. M. Beier and can confirm the presence of pulvilli and the correctness of the determination of this species given by Edwards, 1929 (*Trans. ent. Soc. London* **77** : 375) and by Townes, 1945 (*Amer. midl. Nat.* **34** : 71, 76). This species is now placed in the genus *Phaenopsectra*.

5. Coquillett's type-fixation was not noticed until Edwards wrote an account of the British species of the family CHIRONOMIDAE in 1929 (*Trans. ent. Soc. Lond.* **77** : 279–430). Edwards decided, erroneously, that Coquillett's type-fixation was invalid because it did not conform with the views of the first reviser (Kieffer, 1909). He accordingly designated *signatus* van der Wulp, which is a readily recognised species without pulvilli, as the type-species of *Tanytarsus* van der Wulp.

6. Between 1909 and 1929 a considerable volume of literature was published using *Tanytarsus* according to Kieffer's restriction, and since that date much more has been published. Not only is *Tanytarsus*, used in this way, a large genus with world-wide distribution and many common species, but a number of the species are important to limnologists. Nowadays, *Tanytarsus* and its allied genera are placed in a separate tribe, the TANYTARSINI Goetghebuer, 1938 (*in* Lindner *Die Fliegen*, Fam. 13c : 73).

7. In 1945, Townes (*Amer. midl. Nat.* **34** : 11) pointed out that Coquillett's

type-fixation had been overlooked and he switched the name *Tanytarsus sensu stricto* to the group in which *punctipes* Wiedemann is now placed, previously known as *Phaenopsectra* Kieffer, 1921. *Phaenopsectra* Kieffer, 1921 (*Ann. Soc. sci. Brux.* **40** : 274) was widely regarded as originally including only one species—*Chironomus leucolabis* Kieffer, 1915 (*Broteria* (Ser. Zool.) **13** : 75) until Townes in 1945 (*op. cit.* : 71) pointed out that there was another originally included species, namely *Chironomus connectens* Kieffer, 1908 (*Ztschr. Wiss. Insektenbiol.* **4** : 83).

8. Edwards, 1929 (*op. cit.* : 375) was the first to mention a type-species for *Phaenopsectra* in saying that " *leucolabis* seems to have been the type of Kieffer's genera *Phaenopsectra* and *Lenzia* ". This, however, cannot be regarded as a definite type-designation. Goetghebuer, 1939 (*op. cit.* : 80) designated *leucolabis* as the type-species and at the same time synonymised it with *Chironomus flavipes* Meigen, 1818 (*Syst. Beschr. Zweifl. Ins.* **1** : 50). *Phaenopsectra* Kieffer does not belong to the group previously designated TANYTARSINI but to the tribe CHIRONOMINI. Hence Townes has transferred the name *Tanytarsus* from one tribe to another and has renamed both the familiar genus *Tanytarsus* and the tribe TANYTARSINI with the next available name, that is *Calopsectra* Kieffer, 1901 (*Bull. Soc. Hist. nat. Metz* **26** : 50) and CALOPSECTRINI Townes, 1945.

9. Not only is *Tanytarsus* van der Wulp, as restricted by Kieffer, one of the oldest names in the family CHIRONOMIDAE, it is also one of the better known and more widely used names and it seems undesirable not only to rename the group but at the same time to switch the name to a genus in another tribe. *Tanytarsus* has been used in the familiar sense by Kieffer in all his numerous papers on the family, also by Edwards and Goetghebuer. The well-known works on the early stages by Thienemann, Lenz, Brundin and their collaborators invariably used *Tanytarsus* in this sense.

10. For the reasons set forth in the present application, the International Commission on Zoological Nomenclature is asked :

(1) to use its plenary powers (a) to set aside all type-designations for the genus *Tanytarsus* van der Wulp, 1874, made prior to the Ruling now asked for and (b) having done so to designate *Chironomus signatus* van der Wulp, 1858 to be the type-species of that genus ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :—
  (a) *Tanytarsus* van der Wulp, 1874 (gender : masculine), type-species, by designation under the plenary powers in (1)(b) above, *Chironomus signatus* van der Wulp, 1858 ;
  (b) *Phaenopsectra* Kieffer, 1921 (gender : feminine), type-species, by subsequent selection by Goetghebuer, 1939, *Chironomus leucolabis* Kieffer, 1915 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :—
  (a) *signatus* van der Wulp, 1858, as published in the binomen *Chironomus signatus* (type-species of *Tanytarsus* van der Wulp, 1874) ;

(b) *flavipes* Meigen, 1818, as published in the binomen *Chironomus flavipes*;

(c) *punctipes* Wiedemann, 1817, as published in the binomen *Chironomus punctipes*;

(4) to place the family-group name TANYTARSINI Goetghebuer, 1938 (type-genus, *Tanytarsus* van der Wulp, 1874) on the Official List of Family-Group Names in Zoology.

PROPOSAL TO PLACE THE GENERIC NAME *NEOEUTHYRIS* BRETNALL, 1921 (PHYLUM POLYZOA) ON THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY. Z.N.(S.) 1314

By Anna B. Hastings (*British Museum* (*Natural History*), *London*)

The nominal genus *Lichenella* Gray, 1858 (*Proc. zool. Soc. London* **26** : 322 ; 1859, *Ann. Mag. nat. Hist.* (3) **3** : 153), with type-species, by monotypy, *Lichenella brentii* Gray (*ibid.*) was based on a specimen of an algal colony bearing an encrusting polyzoan. Gray was uncertain whether the specimen represented a polyzoan colony of flustrine form, or a frond of the alga *Mastophora lamourouxii* (Decne) Harvey with its surface wrinkled where the longitudinal series of zooecia of an attached polyzoan had adhered to it. Examination of the holotype leaves no doubt that the latter supposition is correct.

2. My colleague Mr. R. Ross reports that " the algal portion of the specimen is clearly a member of the genus *Metamastophora* Setchell . . . It seems to resemble *Metamastophora plana* (Sonder) Setchell better than the other possible Australian species *Metamastophora flabellata* (Sonder) Setchell ". The encrusting polyzoan agrees with *Neoeuthyris woosteri* (MacGillivray, 1891) (described as *Euthyris woosteri*, *Proc. roy. Soc. Victoria* N.S. **3** : 77). The holotype of this species (divided between the National Museum, Melbourne, Victoria, and the Australian Museum, Sydney, N.S.W.) also encrusts an alga, but Miss Elizabeth Pope (Australian Museum) tells me that it is " impossible to hazard a name " for it. It shows ridges similar to those in *Lichenella brentii*. One of four specimens of *Metamastophora plana* in Harvey's Australian algae in the British Museum (Natural History) bears extensive growths of *Neoeuthyris woosteri*.

3. Although Gray applied the name *Lichenella brentii* to the whole specimen, his description applies almost entirely to what proves to be the algal portion of his specimen. Nevertheless his work was concerned with " . . . new forms of Polyzoa " and it is clear that he strongly suspected the mixed nature of his specimen. It would therefore be possible for any zoologist, by selecting the polyzoan component of Gray's specimen as the lectotype, to make *Lichenella brentii* Gray, 1858, the valid name of the genus and species to which that polyzoan belongs. The effect of this would be that the generic name *Lichenella* Gray, 1858, would displace the generic name *Neoeuthyris* Bretnall, 1921, and that the specific name *brentii* Gray, 1858 (*Lichenella*) would displace the specific name *woosteri* MacGillivray, 1891 (*Euthyris*), thus producing an unnecessary disturbance in the stability of nomenclature in this group. From the point of view of zoological nomenclature, therefore, it would be preferable to select the algal component as the lectotype of *Lichenella brentii*, thus transferring the binomen to the plant kingdom while leaving it its rights in zoological nomenclature only under the Law of Homonymy. Mr. Ross kindly informs me that this step would have no disturbing effects on botanical nomenclature, as explained in the following paragraph.

4. Article 66 of the International Code of Botanical Nomenclature, Paris, 1954 (Lanjouw ed., 1956) states : "A name must be rejected if it is based on a type consisting of two or more entirely discordant elements, unless it is possible to select one of these elements as a satisfactory type." Mr. Ross has examined Gray's specimen and reports : " I am quite clear that, as far as botanical nomenclature is concerned, the name *Lichenella brentii* comes under this article. The characters in Gray's description are drawn from the algal and the polyzoan parts of the specimen and to a botanist's way of thinking neither can be regarded as a satisfactory type ".

5. I therefore now select the algal element of Gray's holotype as the lectotype of *Lichenella brentii* Gray, 1858. The whole specimen is registered No. 1938.8.10.1 in the Zoological Department of the British Museum (Natural History), London : the portion chosen as lectotype is now in the Botanical Department.

6. Having thus disposed of the name *Lichenella brentii* from the standpoint of zoological nomenclature without producing any harmful effects in botanical nomenclature, it only remains to secure the resulting valid generic and specific names of the polyzoan in question from instability by placing them on the appropriate Official Lists. The nominal genus *Neoeuthyris* Bretnall, 1921 (*Rec. austral. Mus. Sydney* **13 :** 157) is the oldest available name for this genus. The type-species, by monotypy, is *Euthyris woosteri* MacGillivray, 1891 (see paragraph 2 above), and this specific name is the oldest available name for that species. No family-group name has ever been formed from the generic name *Neoeuthyris*, the genus being referred to the family EUTHYRISELLIDAE, so that no family-group name problems arise.

7. I therefore ask the International Commission on Zoological Nomenclature :—

(1) to place the generic name *Lichenella* Gray, 1858, on the Official Index of Rejected and Invalid Generic Names in Zoological Nomenclature as a name rejected for all purposes other than those of the Law of Homonymy ;

(2) to place the specific name *brentii* Gray, 1858, as published in the binomen *Lichenella brentii*, on the Official Index of Rejected and Invalid Specific Names in Zoological Nomenclature as a name rejected for all purposes other than those of the Law of Homonymy ;

(3) to place the generic name *Neoeuthyris* Bretnall, 1921 (gender : feminine), type-species, by monotypy, *Euthyris woosteri* MacGillivray, 1891, on the Official List of Generic Names in Zoology ;

(4) to place the specific name *woosteri* MacGillivray, 1891, as published in the binomen *Euthyris woosteri* (type-species of *Neoeuthyris* Bretnall, 1921) on the Official List of Specific Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A NEOTYPE FOR *DYTISCUS CINEREUS* LINNAEUS, 1758, THE TYPE-SPECIES OF *GRAPHODERUS* DEJEAN, 1833 (CLASS INSECTA, ORDER COLEOPTERA). Z.N.(S.) 1389

By J. Balfour-Browne (*British Museum* (*Natural History*) *London*)

The nominal species *Dytiscus cinereus* was established by Linnaeus in 1758 (*Syst. Nat.* (ed. 10) **1** : 412). On the same page, below, Linnaeus described *Dytiscus sulcatus*.

2. I am not aware of any later examination and report on the Linnean specimens of these two species (in the collection of the Linnean Society of London) than that of Schaum, 1847 (*Ent. Ztg. Stettin* **8** : 279). He says of *cinereus* : " three specimens stand under this name, that bearing the label being a [*Graphoderus*] *zonatus*, standing beside a [*Graphoderus*] *bilineatus* and a female [*Acilius*] *sulcatus* ; there is no specimen of *cinereus sensu* Aubé, Erichson ". Through the kindness of Mr. W. H. T. Tams, Curator of the Linnean collection, I have been able to examine these specimens and can confirm that three specimens stand under the name *cinereus*, one, bearing the name label, being a female [*Graphoderus*] *zonatus* (Hoppé, 1795) (*Ins. Elyt.* : 33), the second a female [*Graphoderus*] *bilineatus* (de Geer, 1774) (*Mém. Ins.* **4** : 400) and the third an [*Acilius*] *sulcatus* (Linnaeus), but a male, not a female as stated by Schaum. Under the name *sulcatus* are three females of the species so named at the present day.

3. The pin and mounting of the male *sulcatus* standing under the name *cinereus* are certainly Linnean. It appears indubitable that Schaum made an error, either in writing his notes or in reading them, when he stated in 1847 that this specimen was a female.

4. Linneaus (1758) referred to Roesel, 1749 (*Ins. Belust.* **2** : Wasser-Ins. pl. 3), citing fig. 6 of that plate in the synonymy of *cinereus*, and fig. 7 in the synonymy of *sulcatus*. Roesel's plate, as is now recognized, and as his text (: 17–24) shows, depicts the life-history of the species currently known as *Acilius sulcatus*, so that Linnaeus, in effect, named the male and the female of this insect as separate nominal species.

5. This fact was early recognized by authors following Linnaeus. In 1761 (*Fn. Svec.* (ed. 2) : 215) Linnaeus himself quoted the 1758 diagnosis, but added a description which can only apply to a species of *Graphoderus* Dejean, 1833. In 1767, however (*Syst. Nat.* (ed. 12) **1** : 666) he added after *sulcatus* " ? the female of *D. cinereus* ". Geoffroy, 1762 (*Hist. abr. Ins.* 1 : 189) doubtfully synonymized the two species. De Geer, 1774 (*Mém. Hist. Ins.* **4** : 397) expressly united them, reporting that he had found them *in copula* ; he renamed the combined species *Dytiscus fasciatus*. The same view was held by O. F. Müller in 1776 (*Zool. Dan. Prodr.* : 70) who referred to Roesel's account of the life-history and stated that Linnaeus and Geoffroy were both in doubt as to whether the two species were distinct. Rossi, 1795 (*Fn. Etrusca* ed. 2) **1** : 232)

asserted that " *D. cinereus* of Linnaeus and others is quite certainly the male of *D. sulcatus* ". He also stated that the *D. cinereus* of Fabricius and Olivier is the *D. bilineatus* of De Geer, which (: 414) he renamed *Dytiscus taeniatus*. Marsham, 1802 (*Col. Brit.* : 413) regarded the two nominal species as the sexes of a single species, and took *cinereus* as the valid name. As the first author not only to recognise the taxonomic identity of the two, but also definitely to choose one of the names in preference to the other, he was the valid first reviser in this case. It may be noted in passing that his action followed the principle of page and line priority.

6. The contrary view to that held by the authors mentioned in the preceding paragraph was first expressed by Fabricius, who in most of his works (1775, *Syst. Ent.* : 231 ; 1781, *Spec. Ins.* **1** : 293 ; 1787, *Mant. Ins.* **1** : 190 ; 1792, *Ent. syst.* **1** : 190 ; 1801, *Syst. Eleuth.*) did no more than repeat Linnaeus's diagnosis of 1758, but in 1787 stated of *sulcatus* " Mas elytris glabris omnino distinctus a *D. cinereo* ". The only specimen in the Banks collection, however (the collection which houses the relevant Fabrician types) is of quite a different species, *Colymbetes striatus* (Linnaeus). The decisive interpretation of *cinereus* as a species distinct from *sulcatus* appears to be that of Panzer, 1795 (*Fn. Germ.* **31** : pl. 11), whose figure is unmistakably of a species of *Graphoderus*. He attributed the name to Fabricius, but quoted the 1761 and 1767 references to Linnaeus. The former reference may be significant, for as explained in paragraph 5 above, Linnaeus in 1761 clearly described a form of the genus *Graphoderus*. Panzer's figure may, I think, be accepted as representing *cinereus* auctorum as currently recognized.

7. Westwood, 1838 (*Class. Ins.*, Synopsis : 8) designated *Dytiscus cinereus*, ascribed to Fabricius, as the type-species of *Graphoderus* Dejean, 1833 (*Cat. Col.* (ed. 2) : 54). This genus was established without any definition or description, but with nine originally included species, of which all but three had been previously established. The generic name is not, therefore, as it is said to be by Sherborn (*Index Anim.*) a *nomen nudum*. *Dytiscus cinereus* " Fabricius " was one of these species, and Westwood's designation is therefore valid. The species in question is clearly identifiable, for Westwood's Synopsis deals only with British insects, and *Graphoderus cinereus* auctorum is the only species of the genus known in Britain. The fact that this is not the same as the species that he actually cited by name, which, together with the nominal species cited by Dejean, must be taken to be *Dytiscus cinereus* Linnaeus, 1758, shows that *Graphoderus* is a genus based on a misidentified type-species. It has been claimed (Guignot, 1946, *Rev. franç. Ent.* **13** : 117) that Stephens, 1835 (*Ill. Brit. Ent., Mand.* **5** Appendix : 395) first designated the type-species of the genus, but his words " . . . formed the genus *Graphoderus* to embrace *D. cinereus* Linné, and its allies . . . " do not constitute a valid type-designation. It has also been claimed (F. Balfour-Browne, 1935, *Ent. mon. Mag.* **71** : 249) that Hope, 1838 (*Col. Man.* **2** : 131) designated *Dytiscus cinereus* as type-species, but information in the British Museum (Natural History) copy of this work suggests that the correct date of publication is 1839.

8. The interpretation of *cinereus* by Aubé, 1836 (*Icon. Col.* **5** : 85, pl. 11, fig. 1) and by Erichson, 1837 (*Käf. Mark-Brandenb.* **1** : 143), mentioned by

Schaum, is that of Panzer, and the same as that currently accepted.

9. It is thus clear that the question of the type-species of *Graphoderus* Dejean, 1833, must be referred to the Commission for a decision under the plenary powers. Before setting out the alternative courses of action open to the Commission, however, two points affecting the identity of *Dytiscus cinereus* Linnaeus, 1758, should be mentioned. First, the diagnosis of 1758 is insufficient, taken alone, to determine to which of the three Linnean specimens the name *cinereus* should be applied. Secondly, the fact that Schaum (1847) wrongly reported the male *sulcatus* standing under the label *cinereus* in the Linnean collection as a female points to the significance of Linnaeus's reference to Roesel's plate ; fig. 6 clearly represents the same species as that to which the male *sulcatus* standing under *cinereus* belongs, and fig. 7 the species to which belong the three specimens standing under *sulcatus*, i.e., the male and female of one species. No holotype was designated for either species by Linnaeus, and no lectotype has ever been selected for either.

10. If the Commission designates the nominal species cited by Dejean and Westwood as the type-species of *Graphoderus*, namely, *Dytiscus cinereus* Linnaeus, 1758, this will be the species of which the male is shown in Roesel's fig. 6 and the female in his fig. 7. The valid name for this species, through Marsham's action in 1802 as first reviser, is *cinereus*, but the name universally applied to it is *sulcatus* Linnaeus, 1758. This species is the type-species, by monotypy, of *Acilius* Leach, 1815 (see the next application), which obviously has priority over *Graphoderus* Dejean, 1833. The effect of this action, therefore, would be to change the name of the type-species of *Acilius* from *sulcatus* (which has been used for that species for 140 years) to *cinereus*, by transferring the latter specific name from the genus in which it is always employed, and of which it has for 120 years denoted the type-species, to another genus ; to render the widely-used generic name *Graphoderus* a junior synonym of *Acilius* ; and to leave the genus now known as *Graphoderus*, as well as the type-species of that genus, without a valid name.

11. If the Commission designates as type-species of *Graphoderus* the species actually intended by Westwood, there still remains the problem of providing that species with a valid name, since, as has just been demonstrated, the name *cinereus* Linnaeus, 1758, by which that species is universally known, is under the rules the valid name for the type-species of *Acilius*. This object could be attained by suppressing the specific name *cinereus*, as published in the binomen *Dytiscus cinereus* or *Graphoderus cinereus*, by all authors prior to Westwood, 1838, so as to validate the name as from that author's use of it. This would, however, be a very cumbersome procedure, for apart from involving the suppression of at least the seventeen uses of the name prior to Westwood's and mentioned in the present paper, it would involve also the suppression of any synonyms applied to the same species between 1758 and 1838. To give objective definition to the name *cinereus* by selecting one of the Linnean syntypes would have disturbing results whichever specimen was chosen, for the name *cinereus* would then replace either *sulcatus* Linnaeus, 1758 (with the disastrous effects already described), or *bilineatus* De Geer, or *zonatus* Hoppé. Both these latter names are currently held to denote species of *Graphoderus*

distinct from *cinereus*.

12. The elimination of the procedures just discussed leaves only one simple and direct method whereby stability of nomenclature can be attained in the present case, namely, by designating a neotype for *Dytiscus cinereus* Linnaeus, 1758. Since such a neotype cannot by any means be said to satisfy the conditions laid down in the rules, the plenary powers of the Commission would have to be used, (a) to sanction the use of the neotype-method in this case, and (b) to ratify the designation of the specimen proposed. I propose that the neotype of *Dytiscus cinereus* Linnaeus, 1758, be a male specimen in the Power collection of British Coleoptera in the British Museum (Natural History), labelled "Power 96–69". No locality data are given, but the specimen came in all probability from the former Whittlesea Mere, Huntingdonshire.

13. I accordingly ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers :
- (a) to direct that the identity of the nominal species *Dytiscus cinereus* Linnaeus, 1758, is to be determined by the neotype-method ;
- (b) to direct that the neotype of the above nominal species is the specimen so designated by Balfour-Browne in the present paper ;

(2) to place the generic name *Graphoderus* Dejean, 1833 (gender : masculine), type-species, by selection by Westwood, 1838, *Dytiscus cinereus* Linnaeus, 1758 , on the Official List of Generic Names in Zoology ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :
- (a) *cinereus* Linnaeus, 1758, as published in the binomen *Dytiscus cinereus*, and as defined under the plenary powers in (1) above (type-species of *Graphoderus* Dejean, 1833) ;
- (b) *bilineatus* De Geer, 1774, as published in the binomen *Dytiscus bilineatus* ;
- (c) *zonatus* Hoppé, 1795, as published in the binomen *Dytiscus zonatus* ;

(4) to place the generic name *Graphoderas* Thomson, 1860 (*Skand. Col.* **2** : 38), an erroneous subsequent spelling of *Graphoderus* Dejean, 1833, on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(5) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :
- (a) *fasciatus* De Geer, 1774, as published in the binomen *Dytiscus fasciatus* (a junior objective synonym of *Dytiscus cinereus* Linnaeus, 1758) ;
- (b) *taeniatus* Rossi, 1795, as published in the binomen *Dytiscus taeniatus* (a junior objective synonym of *Dytiscus bilineatus* De Geer, 1774).

PROPOSED USE OF THE PLENARY POWERS TO VARY THE RULING GIVEN IN OPINION 522 SO AS TO PRESERVE THE GENERIC NAME *ACILIUS* LEACH, 1817 (CLASS INSECTA, ORDER COLEOPTERA).

Z.N.(S.) 1391

By J. Balfour-Browne (*British Museum* (*Natural History*) *London*)

By the ruling given in Opinion 522 (1958, *Ops. Decls. int. Comm. zool. Nomencl.* **19** : 209–248), the generic name *Acilius* Rafinesque, 1815 (Class Crustacea), was suppressed for the purposes of the Law of Priority, but not for those of the Law of Homonymy, thus invalidating *Acilius* Leach, 1817, a name in uninterrupted use during 140 years for a genus of Dytiscid beetles.

2. *Acilius* Leach, 1817 (*Zool. Misc.* **3** : 69) was established in a key to the genera of the Dytiscidae, and later in the same paper was provided with a single species, cited as " *Dyticus* 1 *sulcatus* auctorum ", which is therefore the type-species, by monotypy. The question of the spelling of the generic name, and its bearing on the family-group name based on it, is considered below. The question of the identity of the species " *Dyticus sulcatus* auctorum " is readily answered. The nominal genus concerned is *Dytiscus* Linnaeus, 1758, and only one species bearing the name *sulcatus* has ever been described in, or referred to, this genus, namely *Dytiscus sulcatus* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 412).

3. In the index to vol. 3 of the *Zool. Misc.* (: 143) Leach lists the generic name with a reference to page 69, but names the sole included species *cinereus*, with a reference to page 72. In the absence of any other data, it is impossible to say exactly what is meant by this entry, although it is probable that Leach, in common with some other early authors, regarded *Dytiscus cinereus* Linnaeus, 1758, and *Dytiscus sulcatus* Linnaeus, 1758, as representing respectively the male and female of one species. This subject is discussed more fully in the immediately preceding application. If this is so, then it is clear that Leach regarded *cinereus* and *sulcatus* as synonymous names, and the monotypic establishment of the genus is not affected, *sulcatus* remaining the nominal type-species. If this is not so, then it must be assumed that Leach was proposing *cinereus* as a new name in replacement of " *sulcatus* auctorum ", in which case his name falls as a junior objective synonym of *sulcatus* Linnaeus, 1758, and that species remains the type-species, by monotypy, of *Acilius*. The latter view is adopted here.

4. It is necessary now to demonstrate the identity at the level of the generic names of *Dytiscus sulcatus* Linnaeus, 1758, and *Dyticus sulcatus* Leach, 1817. The broadly-conceived Linnean genus *Dytiscus* was first restricted to species which are now accepted as belonging to the family DYTISCIDAE by Geoffroy, 1762 (*Hist. abr. Ins. Paris* **1** : 185), but his work has been rejected for nomenclatorial purposes in Opinion 228, since he did not consistently apply the principles of binominal nomenclature. He used the spelling *Dyticus* (citing *Dytiscus* Linnaeus as a synonym), presumably on the assumption that the name

was derived from the Greek adjective δυτικος, meaning " able to dive "—a very suitable source for a name for these aquatic beetles. Subsequent authors accepted the limits set by Geoffroy for the genus but used the Linnean spelling *Dytiscus*, namely : Scopoli, 1763 (*Ent. carn.* : 96); O. F. Müller, 1764 (*Fn. Ins. Fridrichsdal.* : xi) ; De Geer, 1774 (*Mém. Hist. Ins.* **4** : 381) ; Fabricius, 1775 (*Syst. Ent.* : 230), 1777 (*Gen. Ins.* : 68), 1781 (*Spec. Ins.* **1** : 290), 1792 (*Ent. Syst.* **1** : 187) ; Olivier, 1795 (*Entomologie* **50** : 17) ; Panzer, 1795 (*Ent. Germ.* **1** : 73) ; and Paykull, 1798 (*Fn. suec.* **1** : 190). On the other hand, Müller, 1776 (*Zool. Dan. Prodr.* : 69) and Illiger, 1798 (*Verz. Käf. Preussens* : 248) adopted Geoffroy's spelling *Dyticus* as well as his taxonomic concept. Latreille, 1810 (*Consid. gén.* : 167) referred to *Dyticus*, but designated the type-species as " *Dytiscus marginalis* Fabricius " (i.e. Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 411). It is clear that these authors were deliberately emending *Dytiscus* on linguistic grounds, but since the incorrect latinization of which they regarded Linnaeus as guilty gives no cause for emending a name under the rules, it is clear that *Dytiscus* Linnaeus, 1758, is a correct original spelling, and that *Dyticus*, first used as an available name by Müller, 1776, is an unjustified emendation, and a junior objective synonym, of the name in its original form.

5. In considering family-group names based on *Dytiscus*, it is necessary to deal first with the vernacular term " les Ditisques " of De Geer, 1774 (*Mém. Hist. Ins.* **4** : 354, 381). This seems to have been used only as a plural adjective or noun for the members of the genus *Dytiscus* and need not be considered further as a family-group name. HYDROCANTHARI Gyllenhal, 1808 (*Ins. suec.* **1** : 464) is not based on a generic name and is therefore not available as a name in the family-group. It was used by Latreille, 1810 (*Consid. gén.*) in the sense of a family name, and is currently employed by French authors, in the vernacular, for the aquatic series of families of the Coleoptera Adephaga. The first available name based on *Dytiscus* is DYTICIDEA Leach, 1817 (*op. cit.*), which is subject to automatic correction both in the portion based on the name of the type-genus, and in its termination. Curtis, 1826 (*Brit. Ent.* : pl. 99) used DYTICIDAE. The spelling DYTISCIDAE appeared twice in 1854, once in Wollaston, *Ins. Mader.*, and once in Fairmaire & Laboulbène, *Faune ent. France* **1** : 177. The former work was received at the Library of the Entomological Society of London between 7 August and 4 September 1854 ; the latter is listed in the *Bibliographie de France* for the week 16–22 July 1854 (although the preface is dated 26 July). The evidence is therefore that the latter work appeared earlier.

6. In view of the facts set out above, I ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers to vary the Ruling given in Opinion 522 to the extent necessary to suppress the generic name *Acilius* Rafinesque, 1815, for the purposes both of the Law of Priority and of the Law of Homonymy ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :

(a) *Acilius* Leach, 1817 (gender : masculine), type-species, by monotypy, *Dytiscus sulcatus* Linnaeus, 1758 (validated through the use of the plenary powers in (1) above) ;

(b) *Dytiscus* Linnaeus, 1758 (gender : masculine), type-species, by selection by Latreille, 1810, *Dytiscus marginalis* Linnaeus, 1758 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :

(a) *sulcatus* Linnaeus, 1758, as published in the binomen *Dytiscus sulcatus* (type-species of *Acilius* Leach, 1817) ;

(b) *marginalis* Linnaeus, 1758, as published in the binomen *Dytiscus marginalis* (type-species of *Dytiscus* Linnaeus, 1758) ;

(4) to place the generic name *Dyticus* O. F. Müller, 1776, a junior objective synonym of *Dytiscus* Linnaeus, 1758, on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(5) to place the specific name *cinereus* Leach, 1817, as published in the binomen *Acilius cinereus*, (a junior objective synonym of *Dytiscus sulcatus* Linnaeus, 1758), on the Official Index of Rejected and Invalid Specific Names in Zoology ;

(6) to place the family-name DYTISCIDAE (correction by Fairmaire & Laboulbène, 1854 of DYTICIDEA) Leach, 1817, (type-genus : *Dytiscus* Linnaeus, 1758) on the Official List of Family-Group Names in Zoology ;

(7) to place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :

(a) " Les Ditisques " De Geer, 1774 (type-genus *Dytiscus* Linnaeus, 1758), invalid because applied only to the members of a genus ;

(b) HYDROCANTHARI Gyllenhal, 1808, invalid because not based on a generic name ;

(c) DYTICIDEA Leach, 1817 (type-genus *Dytiscus* Linnaeus, 1758), an incorrect original spelling of DYTISCIDAE ;

(d) DYTICIDAE Curtis, 1826 (type-genus *Dytiscus* Linnaeus, 1758), an incorrect spelling for DYTISCIDAE.

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE SPECIFIC NAME *DARDANUS* BROWN, 1776, AS PUBLISHED IN THE BINOMEN *PAPILIO DARDANUS* (CLASS INSECTA, ORDER LEPIDOPTERA). Z.N.(S.) 1403

By W. Parkinson Curtis (*Bournemouth, England*)

P. Cramer, *Uitl. Kapellen* **1** : 25, pl. 17, figs. E, F described and figured a castniid moth under the name *Papilio dardanus*. The locality is given as " Surinam ". The date of publication of this part of Vol. 1 of Cramer's work was determined as [31 December] 1775 in Opinion 516 (*Ops. Decls. int. Comm. zool. Nomencl.* **19** : 1–44).

2. In 1776 P. Brown (*New Illustr. Zool.* : 52) proposed *Papilio dardanus* for the African *Papilio* s.s. well known by that specific name.

3. Fabricius (1793, *Ent. Syst.* **3** : 10) used the name *Papilio dardanus* for the male and *Papilio tros* for the female of a Brazilian species of *Papilio* s.s. known only from the province of Rio de Janeiro.

4. *Papilio dardanus* Cramer, [31 December], 1775 is not now used as a valid name, but is regarded as a synonym of *Papilio evalthe* Fabricius, *Syst. ent.* : 480. The date of publication of this work was determined in Opinion 516 as [17 April] 1775. The species is not a butterfly (as are the other two species to which the name *Papilio dardanus* has been given), but a moth. *P. evalthe* is the type-species, by original designation, of *Xanthocastnia* Houlbert, 1918, *in* Oberthur, *Etudes Lép. comp.* **15** : 257.

5. *Papilio dardanus* Brown, 1776, is one of the most often quoted names in all Lepidoptera. It is the best known example of Batesian mimicry and there is a very extensive literature relating to its racial variations and genetics. In the period 1908–1913 there are, in the publications of the Royal Entomological Society of London alone, 16 different papers and notes by six different authors, and this could be multiplied many times by a thorough compilation of references. The name is of value to workers in general zoology far beyond the limits of taxonomy in the Lepidoptera, yet it is technically not an available name because of the existence of a senior primary homonym, even though that homonym has never been in general use and is not currently regarded as a valid name.

6. The genus *Xanthocastnia* is referred to the family CASTNIIDAE and no family-group name problems arise in the present case.

7. For the reasons set out above, I therefore ask the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers to suppress the specific name *dardanus* Cramer, [31 December] 1775, as published in the binomen *Papilio dardanus*, for the purposes both of the Law of Priority and the Law of Homonymy ;

(2) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :

(i) *dardanus* Cramer, [31 December] 1775, as published in the binomen *Papilio dardanus* suppressed under the plenary powers in (1) above ;

(ii) *dardanus* Fabricius, 1793, as published in the binomen *Papilio dardanus* (invalid as a junior primary homonym of *Papilio dardanus* Brown, 1776) ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :

(i) *dardanus* Brown, 1776, as published in the binomen *Papilio dardanus* (validated through the suppression under the plenary powers in (1) above of *Papilio dardanus* Cramer, [31 December] 1775) ;

(ii) *evalthe* Fabricius, [17 April] 1775, as published in the binomen *Papilio evalthe* (type-species of *Xanthocastnia* Houlbert, 1918) ;

(iii) *tros* Fabricius, 1793, as published in the binomen *Papilio tros* ;

(4) to place the generic name *Xanthocastnia* Houlbert, 1918 (gender : feminine) type-species, by original designation *Papilio evalthe* Fabricius, 1775, on the Official List of Generic Names in Zoology.

PROPOSALS CONCERNING HOMONYMOUS FAMILY-GROUP NAMES BASED ON *PHAENOMERIS* HOPE, 1833 AND *PHAENOMERUS* SCHÖNHERR, 1836 (CLASS INSECTA, ORDER COLEOPTERA).

Z.N.(S.) 1405

By R. D. Pope (*Commonwealth Institute of Entomology, London*) and
R. T. Thompson (*British Museum (Natural History), London*)

This application is concerned with a case in which homonymous family-group names result from the similarity, but not identity, of the names of their type-genera. Both the families concerned belong to a single order (Coleoptera), but are placed in different superfamilies. Details of the names involved are given below.

2. In the superfamily SCARABAEOIDEA the nominal genus *Phaenomeris* Hope, 1833, *Proc. zool. Soc. London* for 1833 : 62, was established for the first time in the report of a meeting. From the way in which the report is set out it might be concluded that one new species (*Phaenomeris magnifica* Hope) is described in that genus and that six further new species, five of them cited in connection with existing generic names, are also referred to it. When Hope's paper was published in full, however, (1835, *Trans. zool. Soc. London* **1** : 97) it became clear that he had proposed his new genus for *magnifica* alone. That species is therefore the type-species of *Phaenomeris* by monotypy. The generic name is the basis of the family-name PHAENOMERIDAE Ohaus, 1913, *Deutsch. ent. Z.* : 225 (Beiheft) (PHAENOMERINAE Ohaus, 1918, *Col. Cat.* (66) : 7 ; PHAENOMERIDAE Brues & Melander, 1932, *Bull. Mus. comp. Zool. Harvard* **73** : 452).

3. In the superfamily CURCULIONOIDEA the nominal genus *Phaenomerus* Schönherr, 1836, *Gen. Sp. Curcul.* **3** : 632 has *Phaenomerus sundewalli* Boheman *in* Schönherr (*loc. cit.*) as type-species by original designation. The generic name is the basis of the family-group name PHAENOMERINA Faust, 1898, *Deutsch. ent. Z.* : 76 (PHAENOMERI Csiki, 1936, *Col. Cat.* (149) : 6 ; PHAENOMERINÀ Hustache, 1936, *Sborn. ent. odd. Nár. Mus. Praze* **14** : 39 ; PHAENOMERINAE Marshall, 1954, *Rev. Zool. Bot. Afr.* **49** : 169).

4. The generic and specific names mentioned are the oldest available names for the taxa in question and are in current use.

5. The question of the formation of family-group names from the generic names *Phaenomeris* and *Phaenomerus* was referred to Professor L. W. Grensted, Consulting Classical Adviser to the Commission, who reported : " *Phaenomerus* certainly has stem *Phaenomer-* and gives [at subfamily level] PHAENOMERINAE. *Phaenomeris*, ending in the Greek meris, meridos, has as its stem *Phaenomerid-* and gives PHAENOMERIDINAE. There can be no question that these are the correct forms. Meris, meridos is a very common Greek noun and it gives a form which keeps the two subfamily names reasonably far apart ". Professor Grensted also reported that the gender of *Phaenomerus* is masculine and that of *Phaenomeris* feminine.

6. It is stated in *Copenhagen Decisions zool. Nomencl.* : 34, para. 50 (1)(a) that if the name of the type-genus of a family-group taxon consists of or ends in a word of Greek or Latin origin, the family-group name is to be formed by replacing the genitive singular termination of that word by the termination appropriate to the category in the family-group ; and (para. 50 (1)(b)) that a family-group name formed in contravention of the above is to be automatically corrected. The simple application of this rule to the present case removes the homonymy between the family-group names in question.

7. We therefore ask the International Commission on Zoological Nomenclature :—

(1) to place the following names on the Official List of Generic Names in Zoology :
   (a) *Phaenomeris* Hope, 1833 (gender : feminine), type-species, by monotypy, *Phaenomeris magnifica* Hope, 1833 ;
   (b) *Phaenomerus* Schönherr, 1836 (gender : masculine), type-species, by original designation, *Phaenomerus sundewalli* Boheman *in* Schönherr, 1836 ;

(2) to place the following names on the Official List of Specific Names in Zoology :
   (a) *magnifica* Hope, 1833, as published in the binomen *Phaenomeris magnifica* (type-species of *Phaenomeris* Hope, 1833) ;
   (b) *sundewalli* Boheman *in* Schönherr, 1836, as published in the binomen *Phaenomerus sundewalli* (type-species of *Phaenomerus* Schönherr, 1836) ;

(3) to place the following names on the Official List of Family-Group Names in Zoology :
   (a) PHAENOMERIDIDAE Ohaus, 1913 (correction of PHAENOMERIDAE) (type-genus : *Phaenomeris* Hope, 1833) ;
   (b) PHAENOMERINA Faust, 1898 (available for a family-group taxon below subfamily level) (type-genus : *Phaenomerus* Schönherr, 1836) ;

(4) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :
   (a) PHAENOMERI Csiki, 1936 ;
   (b) PHAENOMERINA Hustache, 1936 (type-genus in each case *Phaenomerus* Schönherr, 1836 ;
   (c) PHAENOMERIDAE Ohaus, 1913 (type-genus : *Phaenomeris* Hope, 1833), an incorrect original spelling of PHAENOMERIDIDAE.

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Edited by

W. E. CHINA

Assistant Secretary to the International Commission on Zoological Nomenclature

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 17, Triple Part 9-11 (pp. 257-352) *16th September*, 1960

New Commissioners. The following zoologists were, on 31 May 1960, elected to the Commission by the Executive Committee under the existing by-laws :—

As British representative to replace Professor P. C. Sylvester-Bradley :
Dr. Gwilym Owen Evans, British Museum (Natural History), London, S.W.7. Acarologist.

As Spanish representative :
Prof. Dr. Raphael Alvarado, Museo Nacional de Ciencias Naturales, Madrid 6. Invertebrate Zoologist.

Illness of the President. Professor J. Chester Bradley, President of the Commission, was taken seriously ill whilst on the way to Europe on board the S.S. *Ryndam* in March. At the time of writing he is still in hospital in Amsterdam where he has been visited by Dr. Boschma on several occasions and by Mr. Melville, in connection with the Commission's affairs, on June 2nd. I am very happy to be able to report that he is making excellent progress. I have had a number of letters from him, written with his left hand, and it is very apparent that his interest in the business of the Commission and the progress of the work of the Editorial Committee on the Code is as keen as ever. Entomologists in particular will be glad to know that he expects to be able to attend the International Entomological Congress in Vienna in August.

Revision of the rules of nomenclature. Progress has not been so rapid as was anticipated when my last note (Dec. 1959, *Bull. zool. Nomencl.* **17** : 65) was published ; a number of rather intractable points having had to be discussed by correspondence between members of the Editorial Committee. However, galley proofs were circulated to members of the Commission on June 14th under the Three Month Rule. Together with the proofs, voting papers were distributed inviting Commissioners' opinions upon a relatively small number of matters upon which the Editorial Committee was in doubt as to the nature of the decision (if any) reached at the Congress in London in 1958.

In September, after the receipt of Voting Papers from the Commissioners, their comments will be considered in the first instance by the Chairman of the Editorial Committee and the Honorary Secretary to the Commission, who will decide, after such consultation with the members of the Editorial Committee as seems to them desirable, whether or not the alterations to the draft texts necessitated by these comments require a further vote by the Commission as a whole. This procedure, which is designed to minimize the delay in the publication of the Code, has the approval of Professor J. Chester Bradley, President of the Commission, and of Professor J. G. Baer, President of the Comité Permanent.

It will appear, therefore, that earlier optimistic forecasts will again not be fulfilled, and that the final text of the Code (French and English) is now unlikely to be published until some time early in 1961.

N. D. RILEY
Hon Secretary to the
International Commission on
Zoological Nomenclature

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the plenary powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* ;—

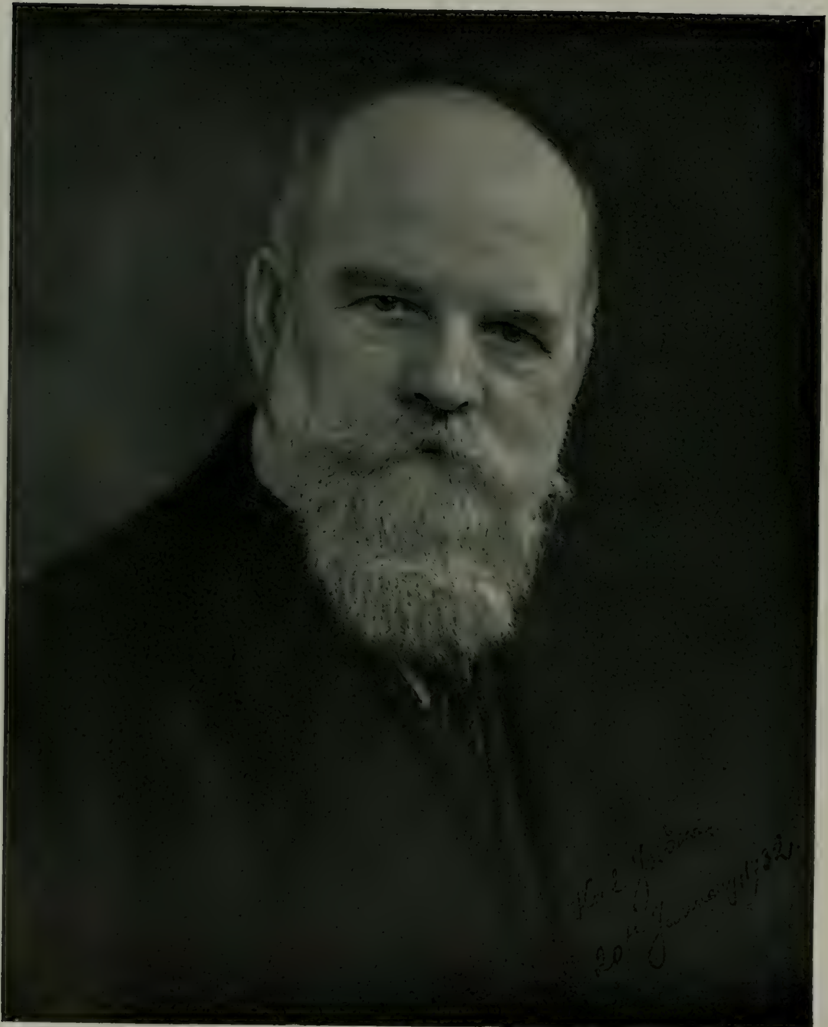
(1) Designation of a type-species for the nominal genus *Fenestella* Lonsdale, 1839 (Bryozoa) (Z.N.(S.) 154) ;
(2) Designation of a type-species for the nominal genus *Blankaartia* Oudemans, 1911 (Nematoda) (Z.N.(S.) 330) ;
(3) Validation of the generic name *Macronema* Pictet, 1836 (Insecta, Trichoptera) (Z.N.(S.) 706) ;
(4) Validation of the specific name *palustris* (*Crocodilus*) Lesson, 1831 (Reptilia) (Z.N.(S.) 760) ;
(5) Designation of a type-species for the nominal genus *Strophalosia* King, 1844 (Brachiopoda) (Z.N.(S.) 784) ;
(6) Validation of the specific name *minutus* (*Echinus*) Buckman, 1845 (Echinoidea) (Z.N.(S.) 1288) ;
(7) Suppression of the family name NIRMIDES [Leach, 1815] (Insecta, Mallophaga) (Z.N.(S.) 1400) ;
(8) Suppression of the generic name *Liotheum* Nitzsch, 1818 (Insecta, Mallophaga) (Z.N.(S.) 1399) ;
(9) Designation of a neotype for the nominal species *Pediculus dentatus* Scopoli, 1763 (Insecta, Mallophaga) (Z.N.(S.) 1394) ;
(10) Designation of a type-species for the nominal genus *Phasianella* Lamarck, 1804 (Gastropoda) (Z.N.(S.) 1433) ;
(11) Suppression of the specific name *pellarini* (*Aedipoda*) Le Guillou, 1841 (Insecta, Orthoptera) (Z.N.(S.) 1436) ;
(12) Designation of a type-species for the nominal genus *Regina* Baird & Girard, 1853 (Reptilia) (Z.N.(S.) 1443) ;
(13) Designation of a type-species for the nominal genus *Norella* Bittner, 1890 (Brachiopoda, Articulata) (Z.N.(S.) 1445) ;
(14) Suppression of the specific name trigonalis (Myalina ?) Etheridge, 1876 (Pelecypoda) (Z.N.(S.) 1446).

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.

W. E. CHINA
Assistant Secretary
International Commission on
Zoological Nomenclature

3*rd July* 1960.

BRITISH M
NATURAL HISTORY


Karl Jordan
20th January 1932.

KARL JORDAN

1861—1959

KARL JORDAN
1861—1959

KARL JORDAN whose death at the age of 97 occurred on 12th January 1959, was the very embodiment of the courtly spirit of international co-operation between men of science which characterised the most distinguished circles at the time when he was growing up—now eighty years or more ago. For over half that period Dr. Jordan was known personally to the present writer and during the last twenty-five years of that time was in close and continuous contact on zoological and nomenclatorial matters. Throughout those long years Dr. Jordan—habit and respect for the distinguished makes it impossible to think of him in any less formal terms—remained essentially unchanged ; always he appeared as the elder statesman, wise, benevolent, of few words but, despite his gentleness of manner, very clearly not a man to be crossed on any major matter of principle except at serious risk.

The circumstances of Dr. Jordan's family history and the events of his early life alike served as a foreshadowing of that devotion to the principle of internationalism which was to be so prominent a feature of his maturity. At the time of Dr. Jordan's birth his family was living at Hildesheim in Hanover where they had long been settled. Dr. Jordan's family, as Hanoverians, had been subjects of the King of England for over a century when in 1837 the operation of the Salic Law led on the accession of Queen Victoria to the English Throne and to the separation of the Kingdom of Hanover under the Queen's uncle, the Duke of Cumberland. Change in national status for dynastic reasons had for centuries been a commonplace of life in European countries and the events of 1837 did not disturb materially the quiet life of the Jordan family. Within the next forty years two further changes of sovereignty were to occur ; under the first Hanover being annexed to Prussia and under the second Prussia being absorbed in the newly-founded German Reich. It was therefore in an atmosphere of political regroupings that the young Karl Jordan grew up, and it may therefore be concluded that his move from Germany to England in 1892 when he took up his duties at the Hon. Walter (later Lord) Rothschild's Museum at Tring and later his exchange of German for British nationality appeared to him to be no more than natural stages in his career as an entomologist. Already both by birth and inclination he was a European devoid of nationalism and by his scientific training an internationalist. Thus while still in his early thirties Karl Jordan gave clear indications of those characteristics which were later to distinguish him from many of his contemporaries and to win for him a unique position of respect and esteem.

Outwardly the next twenty years of Dr. Jordan's professional life have the appearance of being a time of peaceful progress in his work at the Tring Museum. And so indeed they were. But they were much more than this, for it was in this period that Dr. Jordan carried out his most productive work in the field of systematics ; for example, in conjunction with Charles Rothschild he carried out his pioneer studies in the Siphonaptera and with the elder brother Walter Rothschild in the Lepidoptera undertook the studies which led to his important major revisions of the Oriental and American Papilios and of the Sphingidae. These works covered a wider field than any of Jordan's predecessors had attempted in groups of roughly equal size and complexity, they were marked also by a painstaking care and attention to detail which has seldom been equalled. It is not surprising therefore that these works won for Dr. Jordan an international reputation which, while he was still barely fifty, made him one of the best known and the most highly respected entomologists of his day.

Although it was in his formative thirties and forties that Dr. Jordan produced his principal taxonomic work, he was at no time exclusively a specialist in the groups of his special choice and highest proficiency. For in those years his interests spread in many directions and he was also accessible to others for help and advice. It was only natural therefore that as the years went on he should have acquired a constantly increasing correspondence on entomological subjects and that his home at Tring should have become a centre to which a constantly increasing flow of pilgrims came for consultation and assistance. Nor did they go away empty-handed, for even where the subject raised fell outside Jordan's special field, he would listen with close attention to the points raised and it was seldom that he was unable to make some helpful contribution to the discussion in hand. Moreover, side by side with his taxonomic work he had acquired an exceptionally wide knowledge of the literature of entomology—and, indeed, of many other branches of zoology also—and he was always willing and anxious to give to others the fruits of his investigations.

Like others who have worked on the taxonomy of particular groups, Dr. Jordan found himself from time to time confronted with cases involving disputable—or at least disputed—questions of zoological nomenclature. To his orderly and logical mind it was impossible to gloss over difficulties of this sort or to ignore their existence. It was characteristic of the man that, faced with such problems, he should pin his hopes on international co-operation notwithstanding the fact that at that time the means available for regulating zoological nomenclature in the international field were weaker than at any time in living memory and the spirit of co-operation was at its lowest ebb. After twelve years of embittered debate an International Code of Zoological Nomenclature had been adopted at Berlin by the Fifth International Congress of Zoology, but only at the cost of painful compromises only half accepted by the groups concerned. The fact that any agreement, however defective, should have been reached, came as a great relief to those zoologists, the great majority, who were less interested in polemics than in the pursuit of their zoological studies. Zoological administration worked slowly in those days and more than four years were to go by before the text of the Code agreed upon in Berlin was officially promulgated in January 1906. The appearance of this document gave rise to painful surprise in many quarters. Those who had not participated in the Berlin discussions were shocked to see in what a rigid form the Law of Priority had been embodied in the Code, while to those who had been present at the Berlin Congress the text of the new Code was a highly distasteful reminder of the sacrifices then reluctantly entered into on various sides. When in the immediately following years attempts were made by leading specialists to apply the new Code to their various specialities the results were disastrous, it being found that the Law of Priority as drawn up and adopted in Berlin was not only incapable of promoting stability in nomenclature but was on the contrary a powerful engine for the disrupting of currently accepted nomenclature. The response was immediate, strong hostility to the Code being expressed in so many quarters as seriously to injure the fabric of international co-operation. The International Commission on Zoological Nomenclature, as a Standing Body established by the International Congresses of Zoology, might perhaps have smoothed the storm then brewing if it had acted with courage and vigour, but unfortunately it proved to be so weak and disunited as to be quite unable to intervene effectively with the threatened storm. A timid proposal was put forward by the Commission to the Graz Congress in 1910 that the Berlin Code should be retained intact, but that it should be supplemented by an " Official List of Most Frequently Used Zoological Names ", the entry of a name on that " List " not however conferring any guarantee that the name in question had been officially adopted as being a valid name. This proposal was swept away by the Graz Congress as being entirely inadequate ; nothing more could be done then in the time still available and the Congress broke up on the understanding that radical and effective action for dealing with the situation would be taken at the next (IXth) Congress when it met at Monaco in March 1913. It was at this highly unfavourable moment that Dr. Karl Jordan made his first formal appearance on the international stage of zoological nomenclature.

The Monaco Congress opened inauspiciously, the Commission having learnt nothing from the Graz fiasco and being as hesitant and disunited as ever. All that it could bring itself to do was to revise the Graz proposal for an " Official List " of generic names, the new proposal differing from its predecessor only that it was stripped of the more impracticable of the procedural provisions. The only gleam of hope at that moment was that the Commission, depleted in membership at the Congress, had taken a course at that time without precedent of inviting two leading members of the Congress to serve as Alternate Commissioners for the duration of the Monaco Session. The men chosen were the Hon. Walter Rothschild and Dr. Karl Jordan. No happier selection could have been made : Rothschild, with his massive personality, his great wealth and his position in the world of affairs, Jordan, with his distinguished record of performance in entomology, with his acute and logical mind and his conciliatory and friendly spirit, were highly contrasted figures but together constituted a formidable combination when they took their places as members of the largely discredited Commission. They had moreover the great personal advantage over the permanent members of the Commission that as newcomers they were in no way committed to the follies and timidities which had marked the policy of the Commission in the preceding decade ; they were, so to speak, " two men in the street "—though very distinguished ones—drawn from the general membership of the Congress and thus able to make clear to the members of the Commission the nature of the minimum reforms which would alone satisfy the general body of zoologists. The decisive moment came at the very close of the Monaco Congress when the Commission's proposal for the solution of existing difficulties through the adoption of a revised plan for the establishment of an " Official List " of generic names unaccompanied by any other reform, was indignantly rejected by the Congress as inadequate. The Commission was instructed forthwith to draw up a more acceptable scheme for the promotion of stability in zoological nomenclature. At this critical moment the Rothschild-Jordan combination threw its full weight in support of a plan that the Congress should be invited to grant to the Commission plenary powers to suspend the normal operation of the Rules where it was satisfied that without such action greater confusion than uniformity would clearly result. The newcomers to the Commission were strong enough to secure the submission of this plan to the Congress though the struggle was severe and several noteworthy members of the Old Guard consistently voted against this proposal. The sensible nature of the plan, its moderate character and the safeguards with which it was hedged, combined to rally support from groups of zoologists holding highly diverse views. From the moment that it was placed before the Congress it was evident that it was in harmony with the general mood of the moment and was certain to secure overwhelming approval. So indeed it was, the Congress adopting the plan almost unanimously. The brief but bitter struggle at Monaco, ending with the successful emergence of a new policy designed actively to promote stability in nomenclature marked the opening of a new stage in the development of the subject. That this was so was recognised on all hands, as also was the decisive part in the struggle played by Karl Jordan. It followed inevitably that at the end of the Congress this formidable newcomer should become one of the permanent members of the Commission.

The election at Monaco of Karl Jordan to the membership of the Commission was destined to make a deep imprint on the future development of that body and also on that of zoological nomenclature generally. For from that time onwards for nearly forty years (1913-1950) Dr. Jordan remained a member of the Commission, and for twenty years (1929-1948) he was its President. During this long period Dr. Jordan exercised a profound influence over the whole organisation and its members, but it was characteristic of the man that he should do good work by stealth leaving to others the credit due for advances achieved. On two occasions only did he deem it necessary to take a strong personal initiative in the administrative field. In each case the matter at issue was one closely affecting the international character of the Commission. The first occasion was at Lisbon in 1935 when as President he had to deal with the situation created by the resignation of the Secretaryship of the Commission on account of age and ill-health by Charles Wardell Stiles (Washington, D.C.) who had held that office continuously since its establishment. The second was in London in 1939 when owing to the outbreak of war in Europe postal communications between the Office of the Commission and a number of the members were completely disrupted and there was in consequence a risk that, if the war were to continue for any considerable length of time, the personnel of the Commission might become so severely depleted through the expiry of the terms of service of its members as to make it impossible for it to continue its work. Dr. Jordan's methods for dealing with these highly diverse situations were so characteristic as to merit a few words of description.

At the time of his retirement Dr. Stiles had held the Office of Secretary for thirty-nine years ; he had moreover been the first to hold the Office of Secretary and no machinery had ever been devised for regulating the procedure to be followed on a vacancy arising in the Secretaryship. In view of the international character of the Commission the situation was one of some delicacy, it being essential that whatever arrangements might be made they should be such as would not only provide the Commission with a competent Chief Executive Officer but should also be of a kind to command the approval and support of the leading members of the Commission and of zoologists generally on both sides of the Atlantic. Already before the opening of the Lisbon Session arrangements had been made which it was thought would provide the Commission with a second American Secretary (James L. Peters) should it be decided to maintain the then existing balance of nationalities between the Office-holders. At Lisbon, however, Peters had intimated that he was no longer prepared to accept nomination to the Secretaryship. This made it necessary for the whole question to be reconsidered ; as a result Dr. Jordan, acting in conjunction with Dr. Leonhard Stejneger (Washington D.C.), agreed upon the nomination which they considered would be the most appropriate ; they decided however to take no overt action in this matter (beyond ascertaining whether the Commissioner concerned would be prepared to accept nomination) judging that the Commission as an organism would be likely best to withstand the inevitable disturbance arising from a change of Secretary if the election were to be made with the active co-operation of the retiring Secretary and by a vote of the entire membership. Accordingly, on the proposal of Dr. Jordan the Resolution placed before, and adopted by, the Commission at Lisbon not only accepted Dr. Stiles's resignation but in addition invited him to assume the Acting appointment of Officiating Secretary until such time as his successor had been elected. The work of the Commission suffered no material injury through the slight delay imposed by this procedure which served to secure unanimity as to the succession, the formal proposal being later put to the Commission jointly by Dr. Stiles and the other American Commissioners and by the United Kingdom, French and German members of the Commission.

The problem which faced Dr. Jordan at the outbreak of war in 1939, though less delicate, was intrinsically more difficult than that which faced him at Lisbon four years earlier ; for, quite apart from any wastage in Membership of the Commission through the death of individual members the provision enacted by the (VIth) Berne Congress of Zoology in 1904 under which the membership of the Commission was divided into three equal sections (called Classes), each Class being elected for a term of nine years automatically deprived the Commission of six of its members on the expiry of the Class to which they belonged unless steps were taken to establish a new nine-year Class and to appoint to it either the retiring members of the time-expired Class or to elect an equal number of new Commissioners. At the moment when the war in Europe broke out, the problem was one of great urgency, for the next Class to be replaced (Class 1940) was due to complete its term of service within the next twelve months with the result that, if matters were allowed to drift, the Commission would shortly lose six of its members, including both its President and its Secretary. But Dr. Jordan was no man to allow matters to drift and he determined himself to take such action as might be necessary to keep alive the Commission as a body during the Emergency created by the War. He accordingly executed a formal document (the Emergency Powers Declaration) under which he assumed to himself as President the power and duty of issuing from time to time Directions on such matters as he might consider directly affected the due functioning of the Commission. The procedure so devised worked with the utmost smoothness and the action taken by Dr. Jordan under it won immediate approval on being reported to the next following (XIIIth (Paris)) International Congress of Zoology.

It was not however only as regards matters of administration and procedure that Dr. Jordan from time to time took initiative as President of the Commission, for he sometimes did so also on matters of an exclusively nomenclatorial character on which no one not possessing his great experience and high personal prestige could have hoped to intervene with success. The most important, as also the most spectacular, of the successes won by Dr. Jordan in this way was concerned with the interpretation of the expression " binary nomenclature " (" nomenclature binaire ") which appeared in the basic definition of the Linnaean system of zoological nomenclature in Articles 25 and 26 of the Berlin Code then in force. By the opening of the Lisbon Session in 1935 a situation of the utmost confusion had arisen in regard to this matter which had been the subject of bitter controversy for many years. In 1911 the Commission, when dealing with an individual case, had given a Ruling (Opinion 20) which implicitly endorsed the view that a generic name, when published by a non-binominal writer, was to be accepted as complying with the requirements of the Code if the word so used was a noun or a word treated as such. This Ruling had been hotly contested by many specialists, especially in Europe, but the Commission had refused to modify or even to amplify the Ruling which it had given. In 1930 at the XIth (Padua) International Congress of Zoology the obduracy of the Commission in this matter had led to an explosion when the Congress was presented by the late Dr. Walther Horn (Berlin) with a Resolution in which it was asked to amend Article 25 of the Code in such a way as to make it state categorically that, in order to make a generic name available, the author concerned must have clearly adopted the principles of binominal nomenclature. From a procedural point of view the proposal so submitted was out of order and ought to have been rejected by the Chair both in the Section on Nomenclature and (later) in the Final Concilium Plenum, for no notice had been given to the Congress Authorities of the intention of the promotors of this Resolution and contrary to Standing Orders no opportunity had been given to the Commission to submit a statement of its views. Taken off their guard and not realising the importance of the procedural issues involved the Chairmen of those meetings accepted the motion proposed by Dr. Horn which was adopted in each case by a large majority. This decision gave the greatest offence to the Commission and in particular to Dr. Stiles who as Secretary looked upon the adoption of the so-called "Horn Resolution" by the Padua Congress as a bitter personal blow. Dr. Jordan agreed personally with the substance of the "Horn Resolution" but strongly disapproved of the way in which it had been brought forward and approved at the Padua Congress. In the period following the close of that Congress he therefore applied all his gifts of persuasion and charm to lower the heat of the discussion of this problem and to pave the way for the return to a correct procedural basis for the further stages of its consideration. The plan which he devised and for which he enlisted the support of his life-long friend Commissioner Dr. Leonhard Stejneger contemplated a two-stage procedure under which the Comité Permanent of the International Zoological Congresses would be invited at Lisbon to refer this matter back to the President of the Section on Nomenclature and that Officer would in turn refer the problem to the International Commission for consideration and report to the next (XIIIth) Congress. This operation was successfully carried through at Lisbon and the risk which had at one time appeared a real one that on this issue there might be a breakdown in the international system for regulating zoological nomenclature was thereupon dissipated. Many rejoiced on learning that a solution had been found to the difficulties gratuitously raised at Padua, but probably a minority only realised how serious the risk of a major crisis had been at one time and how much they owed to Dr. Jordan who almost single-handed had devised, and secured the adoption of, the plan by which an escape from what appeared an insoluble dilemma was provided without undue loss of face to any of the leaders in the Padua controversy.

By the close of the Lisbon Congress Dr. Jordan was already nearly seventy-five years of age and was severely hampered by increasing deafness. Most of his main work on zoological nomenclature had now been done, although as has already been noted, he was quick, when in his 79th year, to realise the dangers to which the Commission as a body was exposed by the outbreak of war in Europe and to apply the necessary remedial measures. Even in the war years, however, Dr. Jordan continued to make small but important contributions to the work of the Commission by drawing upon the vast riches of the library at Tring to elucidate obscurities or omissions in applications submitted to the Office of the Commission in an incomplete state. The "Opinions" of the Commission concerned with cases dealt with during the war and immediate post-war years bear many traces of the help freely and kindly given by Dr. Jordan in this way. By this time he was well over eighty and, realising that the speed at which he could work was declining, he made a characteristically frank re-assessment of the tasks which he hoped still to be able to carry through and those which he judged it best now to leave to others to perform. It was in this second category that he then placed zoological nomenclature, being reinforced in this decision by the fact that he was now almost completely deaf and therefore unable to preside over, or even to take effective part in, meetings. On this account he decided not to attend the Paris Congress of 1948, sending instead a letter in which he laid down the Office of President of the International Commission. It was characteristic of him that even in this his last official act as an honorary official in the international field he should have expressed the hope that at some future time the Rulers of Countries might achieve agreement on basic principles just as zoologists had done in drawing up the rules for regulating their common language, zoological nomenclature.

Dr. Jordan's wish to be relieved of the Office which he had held for so long and to which he had added such lustre was one which could not be gainsaid. It was accepted, however, only at the cost of real personal sorrow on the part of those who knew him as a man and with a vague sense of loss and uneasiness on the part of those to whom his was little more than the honoured name of a great man of a generation long since past. Everyone at the Paris Congress, whether old or young, was glad however to have a share in electing Dr. Jordan to the Office of Honorary Life President of the Commission which he had served so long and so faithfully.

FRANCIS HEMMING

OPINION 581

DETERMINATION OF THE GENERIC NAMES FOR THE FALLOW DEER OF EUROPE AND THE VIRGINIA DEER OF AMERICA (CLASS MAMMALIA)

RULING.—(1) Under the plenary powers:

(a) the generic name *Dama* Frisch, 1775 (a name published in a work rejected for nomenclatorial purposes by the ruling given in Opinion 258) is hereby validated;

(b) the nominal species *Cervus dama* Linnaeus, 1758, is hereby designated to be the type-species of the genus so named.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Dama* Frisch, 1775 (gender: feminine), type-species, by designation under the plenary powers in (1)(b) above, *Cervus dama* Linnaeus, 1758 (Name No. 1390);

(b) *Odocoileus* Rafinesque, 1832 (gender: masculine), type-species, by monotypy, *Odocoileus speleus* Rafinesque, 1832 (Name No. 1391).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *dama* Linnaeus, 1758, as published in the binomen *Cervus dama* (type-species of *Dama* Frisch, 1775) (Name No. 1697);

(b) *speleus* Rafinesque, 1832, as published in the binomen *Odocoileus speleus* (type-species of *Odocoileus* Rafinesque, 1832) (Name No. 1698);

(c) *virginiana* Zimmermann, 1780, as published in the binomen *Dama virginiana* (Name No. 1699).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Dama* Zimmermann, 1777 (a name published in a work rejected for nomenclatorial purposes by the ruling given in Opinion 257) (Name No. 1311);

(b) The following junior homonyms of *Dama* Frisch, 1775:
  (i) *Dama* Zimmermann, 1780 (Name No. 1312);
  (ii) *Dama* C. Hamilton Smith, 1827 (Name No. 1313);
  (iii) *Dama* J. E. Gray, 1850 (Name No. 1314);

(c) *Dama* J. E. Gray, 1825 (a *nomen nudum*) (Name No. 1315).

HISTORY OF THE CASE (Z.N.(S.) 96)

The history of the case was described, and the arguments in support of differing views expressed by specialists set out, in the following report (slightly modified historically) prepared by Mr. R. V. Melville, when Assistant Secretary, for the information of the Commission.

"The present case originated in April 1915 in a letter from Dr. Marcus W. Lyon (Howard University, Washington, D.C.) to Dr. Stiles (then Secretary to the Commission) pointing out that the generic name *Dama*, long universally used for *Cervus dama* Linnaeus, 1758 (the fallow deer of Europe), should strictly be used for the Virginia deer of America ; for the name was first validly published by Zimmermann, 1780 (*Geogr. Gesch.* **2** : 129) with *Dama virginiana* Zimmermann as the sole originally included species, therefore the type-species by monotypy. Dr. Lyon deplored the necessity thus shown of dropping the well-known generic name *Odocoileus* Rafinesque, 1832, for the Virginia deer and of transferring *Dama* away from the fallow deer of Europe.

" 2. Dr. Stiles submitted the question of the availability of *Dama* Zimmermann, 1780, to the late Dr. F. A. Bather, who reported that in his view while the specific name *virginiana* was available as from Zimmermann's work, the generic name *Dama* was not, and should be disregarded. Dr. G. S. Miller (U.S. Treasury, Washington, D.C.), in a letter dated 15 November 1928, held that Zimmermann had merely quoted the generic name in its pre-Linnean use as the Latin vernacular name for the fallow deer, and that he had not in fact proposed it as a generic name.

" 3. No further progress was made with the case before the transfer of the Secretariat to Mr. Hemming in London. An attempt by Mr. Hemming in 1944 to obtain further information proved abortive, and in fact it was not until the Commission met in Paris in 1948 that the next step was taken. The Commission then agreed (*Bull. zool. Nomencl.* **4** : 551) (a) that the generic name *Dama* and the specific name *virginiana* as published in the binomen *Dama virginiana* were available names as from Zimmermann, 1780, and (b) to examine the question whether the resulting transfer of the generic name from a European to an American species would cause such confusion as to justify the use of the plenary powers. Specialists were recommended not to transfer the name *Dama* in that way pending the outcome of this examination.

" 4. The generic name *Dama* had in fact been used for *Cervus dama*, the European fallow deer, before Zimmermann, 1780, used it for the Virginia deer, namely by Frisch (1775, *Natur-System vierf. Thiere* : 3), but this work in which the principles of binominal nomenclature were not observed, was rejected by the Commission at its Paris meeting (*Bull. zool. Nomencl.* **4** : 549 ; Opinion 258).

" 5. The next stage in the development of the case was the publication of a note by Dr. T. C. S. Morrison-Scott in *J. Mamm.* **32** : 125–126, February 1951 in which the Commission was asked to use its plenary powers to validate *Dama* Frisch, 1775, and to designate *Cervus dama* Linnaeus, 1758, as its type-species. This would have the effect of rendering *Dama* Zimmermann, 1780, an invalid homonym and would thus effectively prevent the use of the name for the Virginia deer. This proposal was supported by Dr. Karl P. Schmidt, Dr. C. C. Sanborn, Dr. D. Dwight Davis, Dr. Bryan Patterson and Dr. Rainer Zangerl, all of the Chicago Natural History Museum, and by Dr. Robert K. Enders (Swarthmore College, Pennsylvania, U.S.A.). Dr. Angel Cabrera, on the other hand, objected on the grounds that it was absurd to validate names from works that had been suppressed, and suggesting that it would be better to validate, *Dama* as from the next author to use it for the European fallow deer (namely, Hamilton Smith, 1827, *in* Griffith's Cuvier, *Animal Kingdom* **5** : 306).

" 6. A short note setting out the issues in this case was published by Mr. Hemming (*Bull. zool. Nomencl.* **7** : 197–198) and Dr. Morrison-Scott's proposal was re-published, accompanied by a report by Mr. Hemming, in 1954 (*Bull. zool. Nomencl.* **9** : 293–298). Mr. Hemming's proposals incorporated those of Dr. Morrison-Scott and complemented them from the technical point of view. He was at pains to point out that, on the one hand, the Commission possesses and has usefully exercised the power to validate names published in rejected works, when it is desirable in the interests of stability of nomenclature to do so ; and, on the other hand, that in the 52 years intervening between Frisch's 1775 and Smith's 1827 usage of *Dama* for the European fallow deer, one or more usages of that name in some other sense might well have taken place and that some other name might during that interval have been proposed for the European fallow deer. Either of these eventualities—and both might have occurred—would, on discovery, necessitate second or even further appeals to the plenary powers in order to secure the position of *Dama* Hamilton-Smith, 1827.

" 7. The proposed use of the plenary powers to validate *Dama* Frisch, 1775, was supported by Dr. Julian Huxley, but the other results of the publication of Mr. Hemming's report were of a surprising nature. The five Chicago zoologists, who had originally supported Dr. Morrison-Scott's proposal, now wrote (27 January 1955) : ' Opinion 258 declared Frisch's *Natur-System*, 1775, not available for nomenclatural purposes. This ruling has the effect, in our judgment, of voiding the Morrison-Scott request and cancels our support for it. We now recommend that the Commission, by use of its plenary powers, validate the generic name *Dama* Hamilton-Smith, 1827, with type *Cervus dama* Linnaeus, as counter-proposed by Dr. Angel Cabrera (*Bull. zool. Nomencl.* **9** : 299–300). Arguments presented by Hemming (*ibid.* : 293–297) in favour of *Dama* Frisch, 1775, are irrelevant. We firmly believe that the use of the plenary powers by the Commission for validation of a name from any nomenclatorially acceptable source insures stabilization of that name. There is no need or justification for the Commission to attempt to validate a generic name from a source it has already rejected.' On the same date the following letter was sent by Dr. A. L. Rand (Birds), Dr. R. F. Inger (Herpetology), Dr. Henry S. Dybas (Insects), Dr. Philip Hershkovita (Mammals), Dr. Emmet R. Blake (Birds), Dr. Rupert L. Wenzel (Insects) and Dr. Fritz Haas (Lower Invertebrates), of the Chicago Natural History Museum ; ' We recommend that *Dama* Hamilton-Smith, 1827, with type *Cervus dama* Linnaeus, be validated as the generic name for the European fallow deer, and condemn all attempts to validate a name from an officially rejected source when the Commission has the power to stabilize the use of the name from any nomenclatorially available source.'

" 8. Further letters in support of *Dama* Hamilton Smith, 1827, were sent to the Commission by Dr. Gerd Diesselhorst (Birds), Dr. Herbert Engel (Mollusca), Dr. Wolfgang Engelhardt (Invertebrates), Dr. Walter Forster (Insects), Dr. Theodor Haltenorth (Vertebrates), Dr. Walter Hellmich (Reptiles and Amphibia) and Dr. Otto Schindler (Fishes) of the Zoologische Sammlung, Munich, Germany (10 February 1955) ; Dr. R. L. Peterson (Royal Ontario

Museum, Canada) (4 February 1955) ; Dr. William H. Burt (Mammals), Dr. J. Speed Rogers (Director), Dr. Reeve M. Bailey (Fishes), Dr. Norman E. Hartweg and Dr. Charles F. Walker (Reptiles and Amphibians), Dr. Emmet T. Hooper (Mammals), Dr. Theodore H. Hubbell (Insects), Dr. Robert W. Storer (Birds) and Dr. Henry van der Schalie (Mollusca) of the University of Michigan (18 February 1955) (this letter was almost word for word the same as that signed by Dr. A. L. Rand and others of Chicago) ; Dr. A. M. Husson (Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands (12 March 1955) (identical with Dr. Rand's letter) ; Dr. Robert Mertens, Dr. Elli Franz, Dr. Adolf Zilch, Dr. Heinz Felten, Dr. Joachim Steinbacher and Dr. Wolfgang Klausewitz, of the Senckenbergische Naturforschende Gesellschaft, Frankfurt a.M., Germany (16 March 1955). In all, 37 zoologists support the validation of *Dama* as from Hamilton Smith, 1827.

" 9. Support for the validation of *Dama* Frisch, 1775, was sent on 10 March 1955 by Dr. Douglas E. Bryan, Dr. Nelson R. Cooley, Dr. John E. Egerton, Dr. Bryan P. Glass, Dr. D. E. Howell, Dr. Wendell R. Krull, Dr. Allan D. Linder, Dr. George A. Moore and Dr. Jones D. Reeves of Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma. In all, eleven zoologists support the validation of *Dama* as from Frisch, 1775.

" 10. It is clear that there is massive support (from 48 zoologists) for the stabilization of the generic name *Dama* for the European fallow deer, but wide disagreement as to how this end should be achieved. The opposite view was expressed on 15 June 1956 by Dr. E. Raymond Hall (University of Kansas, U.S.A.) and three members of the Committee on Nomenclature of the American Society of Mammalogists, who hold that the Code should be strictly applied so as to transfer *Dama* to the Virginia deer of America and to apply the never used name *Platyceros* to the fallow deer. One other member of this Committee favoured *Dama* Hamilton Smith, 1827, and one other member had no opinion. Dr. Luis de la Torre (University of Southern California) published a paper favouring the retention of *Dama* for the fallow deer (1959, *Nat. Hist. Miscell.* No. 167).

" 11. The difference of opinion as to the means to be used for securing the application of *Dama* to the fallow deer appears to be based on a point of principle ; should the Commission, or should it not, use its plenary powers to validate names rejected for nomenclatorial purposes ? As Mr. Hemming pointed out in his Report (see paragraph 6 above), this question of principle has already been answered in the affirmative by the Commission and the Congress (*Bull. zool. Nomencl.* **4** : 65 ; **5** : 23–26). Those specialists listed in paragraphs 7 and 8 above who oppose the validation of *Dama* Frisch, 1775, in principle are thus discussing a question which has already been answered against them ; while the coincidence in time, and the identity or close similarity in wording of their letters suggests an attempt to force the hand of the Commission in the present issue. These zoologists take the view that the stabilization of any name in a particular sense under the plenary powers is sufficient to protect that name for all time from attempts to give it another meaning, or to replace it by another name. Mr. Hemming's contrary view was that no action by the Commission can be regarded as satisfactory unless it contained its own safeguards against future repeated uses of the plenary powers to reinforce a decision already taken under those powers. Thus, if *Dama* Frisch, 1775, is validated, all later uses of that name will be automatically invalid under the Law of Homonymy, and all later names with the same meaning will be automatically invalid under the Law of Priority, and no further use of the plenary powers to safeguard *Dama* Frisch, 1775, will conceivably be necessary except in the unlikely event of the discovery of a senior homonym or a senior synonym. The suppression of *Dama* Zimmermann, 1780, so as to validate *Dama* Hamilton Smith, 1827, on the other hand, would not eliminate the possibility of further recourse to the plenary powers, perhaps on more than one occasion, in connection with names published between 1775 and 1827. It may be true, as the Chicago specialists and their supporters say, that *Dama* Hamilton Smith, 1827, once validated under the plenary powers and placed on the Official List, cannot be displaced by another name, nor be applied in a different sense from that given to it by the Commission, but this approach does not take account of the names of intermediate date that may be found in the future, nor of the fact that such names, if satisfying the relevant criteria of availability, could only be disposed of by suppression under the plenary powers.

" 12. The hands of the Commission are not, of course, tied in any way by the Congress decision referred to above : that is, it is not compelled to validate *Dama* Frisch, 1775 merely because it has the right to do so. There are in effect three alternative courses of action in the present case. The first would be to refuse the request to apply the plenary powers at all (this is the course favoured by Dr. Raymond Hall and three of his colleagues), so that the name of the fallow deer would be changed from *Dama* to *Platyceros*, and the name of the Virginia deer from *Odocoileus* to *Dama*. The second and third alternatives are to use the plenary powers either (a) to validate *Dama* Frisch, 1775 and to place *Odocoileus* on the Official List, or (b) to suppress *Dama* Zimmermann, 1780 so as to validate *Dama* Hamilton Smith, 1827.

" 13. Of the three alternatives outlined in the preceding paragraph, only the second has been reduced to precise terms (*Bull. zool. Nomencl.* **9** : 297). To adopt either of the other two alternatives it would be necessary, in the case of the first alternative :—

(1) to place on the Official List of Generic Names in Zoology the generic names :

   (a) *Dama* Zimmermann, 1780 (gender : feminine), type-species, by monotypy *Dama virginiana* Zimmermann, 1780 ;

   (b) *Platyceros* Zimmermann, 1780 (gender : masculine), type-species by monotypy, *Cervus dama* Linnaeus, 1758 ;

(2) to place on the Official List of Specific Names in Zoology :

   (a) *virginiana* Zimmermann, 1780, as published in the binomen *Dama virginiana* (type-species of *Dama* Zimmermann, 1780) ;

   (b) *dama* Linnaeus, 1758, as published in the binomen *Cervus dama* (type-species of *Platyceros* Zimmermann, 1780) ;

(3) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :

   (a) *Dama* Frisch, 1775, and (b) *Dama* Zimmermann, 1777, published in works rejected for nomenclatorial purposes;

(b) the following junior homonyms of *Dama* Zimmermann, 1780:
  - (i) *Dama* J. E. Gray, 1825 (a *nomen nudum*);
  - (ii) *Dama* Hamilton Smith, 1827;
  - (iii) *Dama* J. E. Gray, 1850;

(*Note*.—No proposals are required here for *Odocoileus* Rafinesque, 1832, since this would become a junior subjective synonym of *Dama* Zimmermann, 1780.)

In the case of third alternative (Alternative B), to take the following action in addition to that set out in *Bull. zool. Nomencl.* **9** : 300, i.e.

(e) to use the plenary powers to suppress, for the purposes of both the Law of Priority and the Law of Homonymy all uses of the generic name *Dama* later than Frisch, 1775, and prior to Hamilton Smith, 1827;

(f) to use the plenary powers to suppress, for the purposes of the Law of Priority but not for those of the Law of Homonymy the names of all nominal genera published after Frisch, 1775, and prior to Hamilton Smith, 1827, in which *Cervus dama* Linnaeus, 1728, was an originally included species and for which that species is, or could in the future be designated as the type-species:

(g) to place the generic name *Odocoileus* Rafinesque, 1832, on the Official List of Generic Names in Zoology;

(h) as *Bull. zool. Nomencl.* **9** : 298, point (3)."

Alternative A is set out in detail in *Bull. zool. Nomencl.* **9** : 297.

" *POSTSCRIPT*

" Since the foregoing report was prepared, support has been received from the zoologists listed below for the stabilization of *Dama* for the fallow deer and of *Odocoileus* for the Virginia deer. The number in favour of this action is thus increased to 76, drawn from the U.S.A., Canada, Great Britain, France, Belgium, Denmark, the Netherlands and Germany. The means whereby this end is to be achieved are, however, still to be chosen by the Commission. The opposite course of action is favoured, as before, by the three American zoologists already mentioned.

Sir Gavin de Beer (Director, British Museum (Natural History), London),
Dr. F. C. Fraser (Keeper of Zoology, British Museum (Natural History), London),
Mr. R. W. Hayman (British Museum (Natural History), London),
Mr. J. Edwards Hill (British Museum (Natural History), London),
Dr. L. Harrison Matthews (Scientific Director, Zoological Society of London),
Sir Solly Zuckerman (Secretary, Zoological Society of London).
Dr. C. F. A. Pantin (University of Cambridge, England).
Prof. H. R. Hewer (Imperial College of Science and Technology, London).
Lord Cranbrook (Saxmundham, England).
Sir John Ellerman (London, England).
Mr. D. R. Rosevear (Bedford, England).
Mr. J. Taylor Page (Mammal Society of British Isles, Norwich, England).

Miss E. M. Laurie (Epping, Essex, England).
M. l'Abbé Lavocat (Ecole Pratique des Hautes Etudes, Paris).
M. Jean Dorst (Muséum National d'Histoire Naturelle, Paris).
Dr. F. Petter (Muséum National d'Histoire Naturelle, Paris).
Prof. J. G. Baer (Université de Neuchâtel, Switzerland).
M. S. Frechkop (Institute Royal des Sciences Naturelle de Belgique, Brussels).
Prof. R. Spärck (Universitetets Zoologiske Museum, Copenhagen).
Prof. Dr. M. Degerbol (Universitetets Zoologiske Museum, Copenhagen).
Prof. D. A. Hooijer (Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands).
Prof. L. F. de Beaufort (Amersfoort, Netherlands).
Dr. A. C. V. van Bemmel (Ass. Director, Royal Zoological Garden, Rotterdam).
Dr. Erna Mohr (Zoologisches Museum, Hamburg, Germany).
Prof. Dr. M. Eisentraut (Zoologisches Forschungsinstitut, Bonn, Germany).
Dr. E. Stresemann (Zoologisches Museum der Universität, Berlin).
Dr. T. Haltenotth (Zoologische Sammlung der Bayerischen Staates, München).
Prof. Dr. K. Zimmermann (Custodian of Vertebrates, Zoologischen Museums der Humboldt-Universität zu Berlin)."

The above report was circulated with a Voting Paper to the members of the Commission on 31 July 1959. After that date, further support for the validation of *Dama* as the generic name for the European Fallow Deer was received from M. G. Teissier (Laboratoire de Zoologie, Université de Paris), Dr. J. Kenneth Doutt (Carnegie Museum, Pittsburgh, U.S.A.), Dr. George Gaylord Simpson (Museum of Comparative Zoology, Harvard College, U.S.A.), Dr. H. Felten (Senckenberg Museum, Frankfurt-a.-M., Germany), Dr. J. Roche (Muséum d'Histoire Naturelle, Paris), Dr. H. Kahmann (Munich, Germany), and Dr. A. W. F. Banfield (National Museum, Ottawa, Canada). The total number of zoologists supporting the stabilization of the generic names *Dama* and *Odocoileus* in their accustomed senses is thus 83.

DECISION OF THE COMMISSION

In Voting Paper (59)7, circulated with the above report, the members of the Commission were invited to vote, under the Three-Month Rule, in Part 1 of the voting paper, for or against the use of the plenary powers to determine the generic names for the Fallow Deer of Europe and the Virginia Deer of America ; and in Part 2, if the vote in Part 1 was in favour of the use of the plenary powers, either for Alternative A (validation of *Dama* Frisch, 1775, as set out in *Bull. zool. Nomencl.* **9** : 297), or for Alternative B (validation of *Dama* Hamilton Smith, 1827) (as set out on p. 4 of the report accompanying the Voting Paper).

At the close of the Voting Period, on 31 October 1959, the state of the voting was as follows :

Part 1, Affirmative votes—twenty-seven (27), received in the following order : Holthuis, Vokes, Boschma, Hering, Riley, Mertens, Hemming, do Amaral, Jaczewski, Key, Bodenheimer, Miller, Mayr, Prantl, Dymond, Lemche, Hankó, Bonnet, Obruchev, Brinck, Uchida, Bradley, Kühnelt, Tortonese, Cabrera, Stoll, Poll.

Negative Votes—none (0).

Leave of Absence—none (0).

Voting Papers not returned—none (0).

Part 2, Alternative A, Affirmative Votes—sixteen (16) : Vokes, Hering, Riley, Hemming, Jaczewski, Bodenheimer, Mayr, Lemche, Hankó, Bonnet, Obruchev, Brinck, Uchida, Kühnelt, Tortonese, Stoll.

Part 2, Alternative B, Affirmative votes—eleven (11) : Holthuis, Boschma, Mertens, do Amaral, Key, Miller, Prantl, Dymond, Bradley, Cabrera, Poll.

Two Commissioners enclosed comments with their Voting Papers, as follows :

Dr. K. H. L. Key (17 August 1959).—" 1. I share the view of those who have held that it is bad in principle, and in a sense ridiculous (notwithstanding the Paris Congress), to validate a name published in a rejected work—at least if another solution is available. The value of rejecting a work as such is that it removes (or should remove) any further necessity for referring to it. If we have to consider, for each ' rejected ' work, which names in it have been exempted from the rejection, it would be more logical to leave the work available and to suppress the objectionable names.

" 2. The procedure set out in (e) and (f) under Alternative B is the answer to Hemming's objections referred to especially in para. 11 of your statement of 31 July. I would have liked to see you state explicitly that this procedure does in fact deprive Hemming's argument of all force, because a Commissioner who relied on the main text of the statement and did not read carefully the actual wording of (e) and (f) might not realise this.

" 3. Although I have voted for Alternative B, I regard it as a defect of this proposal that the relevant period should be cited as ' later than Frisch, 1775, and prior to Hamilton Smith, 1827 '. I can see no grounds for the reference to Frisch. What we have to secure is that all names published prior to Hamilton Smith, 1827, which might threaten *Dama* as of that date should be suppressed. It seems to me immaterial whether such names were published before or after 1775. I hope it may be possible to modify this part of the proposal."

Dr. Angel Cabrera (15 August 1959).—"As you will see, I do not change my mind about the acceptation of names in works included in the Index. Of course, this has been done before, but this does not imply that we are to do it at every opportunity, especially when it is not absolutely necessary. In the present case, it is quite feasible to fix *Dama* for the Old World fallow deer without resorting to a rejected work. The argument that in the intervening years between 1775 and 1827 either another usage of *Dama* or other generic names for the fallow deer might be discovered, seems to me of no importance at all, since it is possible to avoid this difficulty as shown by points (e) and (f) of Alternative B. On the other hand, if we validate *Dama* Frisch, 1775, there will remain the danger of senior homonyms or senior synonyms. I do not think this more unlikely than the discovery of these between the dates of Frisch and of Hamilton Smith. At all events, all this may be avoided by bringing back to 1758 the suppressions intended in the foregoing points.

". . . It is a significant fact that *Dama* has been employed as from Hamilton Smith, 1827, in such important works as Miller's 'Catalogue of the Mammals of Western Europe', 1912, and Lydekker's 'Catalogue of the Ungulate Mammals', **4**, 1915, and by Hilzheimer, also, in so popular a book as the modern edition of Brehm's 'Tierleben', **13**, 1920. In fact, *Dama* Hamilton Smith, 1827, and not *Dama* Frisch, 1775, is the name which has been in general use for 130 years. Now, Ellerman and Morrison-Scott, 1951 : 3, appear as supporting the non-availability of Frisch, 'apart from this one name' (*Dama*). I cannot see any serious reason for this exception."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

Dama Frisch, 1775, *Natur-System* : 3, [31], table at end
Dama Zimmermann, 1777, *Spec. Zool. geogr.* : 353, 532
Dama Zimmermann, 1780, *Geogr. Gesch. Mensch.* **2** : 129
Dama J. E. Gray, 1825, *Ann. Phil.* **26** : 342
Dama C. Hamilton Smith, 1827, *in* Griffith's edition, Cuvier, *Anim. Kingdom*, Syn. 306
Dama J. E. Gray, 1850, *Gleanings Menagerie Knowsley Hall*, Horned Quadrupeds **1** : 5
dama, *Cervus*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 67
Odocoileus Rafinesque, 1832, *Atlantic Journ.* (3) : 109
speleus, *Odocoileus*, Rafinesque, 1832, *Atlantic Journ.* (3) : 109
virginiana, *Dama*, Zimmermann, 1780, *Geogr. Gesch. Mensch.* **2** : 129

CERTIFICATE

WE certify that the votes cast on Voting Paper (59)7 were cast as set out above, that the proposals set out in Part 1 of the Voting Paper have been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 581.

N. D. RILEY
Hon. Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
8 *January* 1960

OPINION 582

VALIDATION OF THE GENERIC NAME *PLEUROTOMARIA* AS FROM DEFRANCE, 1826 (CLASS GASTROPODA)

RULING.—(1) The request for the use of the plenary powers to validate the generic name *Pleurotomaria* J. Sowerby, 1821 is hereby refused on the grounds that the name is technically unavailable.

(2) Under the plenary powers :

(a) the generic name *Pleurotomarium* de Blainville, 1825, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(b) the specific name *similus* [*sic*] J. Sowerby, 1816, as published in the binomen *Trochus similus*, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(3) It is hereby directed that the nominal species *Trochus anglicus* J. Sowerby, 1818, is to be interpreted by reference to the neotype designated therefor by L. R. Cox, 1955.

(4) The generic name *Pleurotomaria* Defrance, 1826 (gender : feminine), type-species, by subsequent designation by S. P. Woodward, 1851, *Trochus anglicus* J. Sowerby, 1818, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1392.

(5) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *anglicus* J. Sowerby, 1818, as published in the binomen *Trochus anglicus* (to be interpreted as directed in (3) above) (type-species of *Pleurotomaria* Defrance, 1826) (Name No. 1700) ;

(b) *similis* J. Sowerby, 1817, as published in the binomen *Trochus similis* (Name No. 1701).

(6) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified :

(a) *Pleurotomaria* J. Sowerby, 1821 (a name published without sufficient definition or indication under the Code) (Name No. 1316) ;

(b) *Pleurotomaria* Ferussac, 1822 (a *nomen nudum*) (Name No. 1317) ;

(c) *Pleurotomarium* de Blainville, 1825 (suppressed under the plenary powers in (2)(a) above) (Name No. 1318) ;

(d) *Pleurotemaria* Carpenter, 1861 (an erroneous subsequent spelling of *Pleurotomaria* Defrance, 1826 (Name No. 1319).

(7) The specific name *similus* [*sic*] J. Sowerby, 1816, as published in the binomen *Trochus similus* (suppressed under the plenary powers in (2)(b) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 608.

(8) The family name PLEUROTOMARIIDAE (correction by King, 1850, of PLEUROTOMARIAE) Swainson, 1840 (type-genus *Pleurotomaria* Defrance, 1826)

is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 286.

(9) The family name PLEUROTOMARIAE Swainson, 1840 (an invalid original spelling for PLEUROTOMARIIDAE) (type-genus *Pleurotomaria* Defrance, 1826) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 324.

HISTORY OF THE CASE (Z.N.(S.) 604)

The present case was first brought to the notice of the Commission in a letter dated 17 September 1951 from Dr. L. R. Cox to Mr. Hemming (then Secretary to the Commission). Dr. Cox's final draft of his application was submitted in 1954. It was sent to the printer on 22 November 1954 and was published on 31 January 1955 (*Bull. zool. Nomencl.* **11** : 21–27).

Dr. Cox's application was supported by the late Dr. W. J. Arkell (*ibid.* : 272), by Dr. D. T. Donovan (University of Bristol, England) and by Dr. J. Marwick (Geological Survey of New Zealand). In June 1955 Professor J. Chester Bradley objected to the proposals on technical grounds, and after correspondence between Dr. Cox, Professor Bradley, and the Office of the Commission, Dr. Cox revised his original proposals. These matters are explained in the following report prepared for the Commission by Mr. R. V. Melville, then Assistant Secretary to the Commission :

" This report presents to the Commission revised proposals for using the plenary powers in the case of the generic name *Pleurotomaria* (Class Gastropoda). The original application, by Dr. L. R. Cox (British Museum (Natural History), London), was published in *Bull. zool. Nomencl.* **11** : 21–27, and had as one of its principal objects the attribution of the generic name to J. Sowerby, 1821, because Sowerby is customarily regarded as the author of the name. Sowerby, however, published the name in such a doubtful and conditional manner that it appeared necessary to use the plenary powers to validate the name as from his work and date. The question of the availability of names published in a conditional manner was clearly one of principle, and it was dealt with by the Commission in Declaration 24 (*Ops. Decls.* **13** : xvii–xxvi), which provided that names published conditionally are to be considered as available. The London (1958) Congress ratified this provision, but restricted its application to names published before the date of publication of the new Code. This does not, however, affect the status of the name *Pleurotomaria* J. Sowerby, 1821, and it was foreseen by Dr. Cox (paragraph 11 of his application) that if such a Declaration were adopted, the generic name *Pleurotomaria* J. Sowerby, 1821, would be automatically made available without recourse to the Plenary Powers.

" 2. Dr. Cox's application was supported by the late Dr. W. J. Arkell (University of Cambridge, England), by Dr. D. T. Donovan (University of Bristol, England), and Dr. J. Marwick (Geological Survey of New Zealand). Professor J. Chester Bradley (President of the Commission), however, considered that the application was defective on technical grounds. The point at issue is the application of the word ' conditional ', and it must surely be conceded that this applies only to the adoption of a given name by a given author, not to the description or indication upon which the name rests. In the present case, Sowerby's description itself is of a conditional nature—that is, it is not clear that any given character is diagnostic of the genus—while his adoption of the name is also conditional. The latter point is one of nomenclature, but the former is one on which infinite argument is possible, and on which no satisfactory determination of the nominal genus can be made. It follows that a ruling under Declaration 24 that would adequately cover Sowerby's conditional adoption of the name would not meet the argument that he had not provided the name with a description, definition or indication sufficient to make the name available.

" 3. A further difficulty in this connection is that the single species mentioned in connection with *Pleurotomaria* by J. Sowerby, 1821, was only doubtfully referred to the genus. Dr. Cox took the view that this species (*Trochus gibsi* J. Sowerby) was therefore not eligible to be the type-species of the genus, and in this he was certainly correct, from the point of view of original designation or indication of the type-species. It was not, however, made clear in the original application that the effect of this conclusion was to render *Pleurotomaria* a genus proposed without any originally included species, and this again turns attention to the question of whether the generic name acquired availability as from Sowerby's publication in 1821. Some authors have taken the view (a) that the generic name is to be attributed to J. Sowerby, 1821, and (b) that *Trochus gibsi* is therefore the type-species by monotypy. Others have concluded that the generic name should be attributed to the next subsequent author (Defrance, 1826) and have determined the type-species accordingly (*Trochus anglicus* J. Sowerby, 1818, by selection by S. P. Woodward, 1821). Dr. Cox stands between the two, in that he wishes the generic name to be attributed to J. Sowerby, 1821, while accepting *Trochus anglicus* as the type-species.

" 4. The difference in effect between accepting *Pleurotomaria* as available on the one hand from J. Sowerby, 1821, and on the other hand from Defrance, 1826, is, that in the former case *Pleurotomarium* de Blainville, 1825, becomes a junior subjective synonym, and in the latter a senior subjective synonym. Dr. Cox states (paragraph 5 of his application) that he knows of only one use of this name since its original application, and the present writer is happy to vouch from many years experience, for the thoroughness of Dr. Cox's knowledge of the literature of his subject. Stability of nomenclature would not be served if *Pleurotomaria* were to be rejected in favour of *Pleurotomarium*, with the consequent necessity of changing the gender of a very large number of specific names.

" 5. The choice is thus simply between (a) validating *Pleurotomaria* from some author and date prior to de Blainville, 1825, or (b) taking steps to suppress the earlier names so as to validate the generic name as from Defrance, 1826, a usage which provides a type-species in full accord both with the Code and with a majority of current practice. The use of the plenary powers to suppress *Pleurotomarium*, which would be an essential part of the second course, would, according to paragraph 12 of Dr. Cox's application, be opposed by certain specialists. In correspondence, however, he has assured me that no specific objection to this has been actually expressed to him, and that he chose the approach presented in his application partly because of the known objection in principle by one international specialist in fossil Gastropoda to the suppression of any name whatsoever. The Commission cannot, I think, accent such a view as justified in general, while in this particular case, it obstructs the simplest path to stability. Dr. Cox himself agrees that it would be simpler to validate *Pleurotomaria* as from Defrance, 1826 by suppressing *Pleurotomarium* de Blainville, 1825, than it would be to pursue his original application in favour of *Pleurotomaria* J. Sowerby, 1821.

"6. Professor Chester Bradley requested clarification of two further points in this case. The first concerns the status of *Pleurotomaria* Ferussac, 1822, claimed by Dr. Cox to be a *nomen nudum*, and thus meet to be rejected whichever of the two courses outlined above is chosen for *Pleurotomaria*. Professor Chester Bradley asks whether this name, which was proposed in a systematic table, was not thereby provided with a sufficient statement of characters to make it available. Members of the Commission are assured that the words 'systematic table' are properly chosen here, and are not synonymous with 'key', and that no basis for *Pleurotomaria* was provided by Férussac other than the mere citation of the names of higher categories in the same table.

"7. Professor Chester Bradley's second point related to the necessity of designating a neotype for *Trochus anglicus* J. Sowerby, for Dr. Cox had demonstrated only the loss of the figured syntypes, and had not shown that the unfigured specimens that must have been the basis of Sowerby's locality citations were also lost. Dr. Cox has now stated in correspondence that these unfigured specimens are also lost, so that, from this technical point of view, it is legitimate to use the neotype method in this case."

DECISION OF THE COMMISSION

On 31 July 1959 Voting Paper (59)8 was circulated to the members of the Commission with the above report, and the members were invited to vote for or against the proposals set out in *Bull. zool. Nomencl.* **11** : 25–26, as modified in the report. These proposals were put forward precisely in the form set out in the Ruling given above, and in that form they were approved by the Commission. At the close of the Voting Period on 31 October 1959, the state of the voting was as follows:

Affirmative Votes—twenty-seven (27) received in the following order: Holthuis, Vokes, Boschma, Hering, Riley, Mertens, Hemming, do Amaral, Jaczewski, Bodenheimer, Miller, Mayr, Prantl, Dymond, Lemche, Hankó, Bonnet, Obruchev, Key, Uchida, Brinck, Bradley, Kuhnelt, Tortonese, Cabrera, Stoll, Poll.

Negative Votes—none (0).

Leave of Absence—none (0).

Voting Papers not returned—none (0).

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

anglicus, Trochus, J. Sowerby, 1818, *Min. Conch.* **2** : corrigenda

Pleurotemaria Carpenter, 1861, *Ann. Rep. Regents Smithson. Inst.* **1860** : 218

Pleurotomaria J. Sowerby, 1821, *Min. Conch.* **3** : 139

Pleurotomaria Férussac, 1822, *Tabl. systemat.* : xxxiv

Pleurotomaria Defrance, 1826, *Dict. Sci. nat.* **41** : 381

Pleurotomarium de Blainville, 1825, *Man. Malac.* : 429

PLEUROTOMARIAE Swainson, 1840 (an incorrect original spelling for PLEUROTOMARIIDAE)

PLEUROTOMARIIDAE (correction by King, 1850, Permian Foss. England (*Palaeont. Soc.*) : 213 of PLEUROTOMARIAE) Swainson, 1840, *Treatise Malac.* : 353

similis, Trochus, J. Sowerby, 1817, *Min. Conch.* **2** : 179, pl. 181, fig. 2

similus, Trochus, J. Sowerby, 1816, *Min. Conch.* **2** : 95, pl. 142

The following is the original reference for the designation of a type-species for a nominal genus involved in the present Ruling :

For *Pleurotomaria* Defrance, 1826 : Woodward, S. P., 1851, *Man. Mollusca* : 147

The following is the original reference for the designation of a neotype for a nominal species involved in the present Ruling :

For *Trochus anglicus* J. Sowerby, 1818 : Cox, L. R., 1955, *Bull. zool. Nomencl.* **11** : 27

CERTIFICATE

WE certify that the votes cast on Voting Paper (59)8 were cast as set out above, that the proposals set out in the voting paper have been adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 582.

N. D. RILEY
Hon. Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature

London
8 *January* 1960

OPINION 583

VALIDATION OF THE GENERIC NAME *CRENIPHILUS* (CLASS INSECTA, ORDER COLEOPTERA) AS FROM HORN, 1890, AND ASSOCIATED MATTERS

RULING.—(1) Under the plenary powers :

(a) the following names are suppressed for the purposes of both the Law of Priority and the Law of Homonymy :
   (i) the generic name *Creniphilus* Motschulsky, 1845 (a justified emendation of *Cryniphilus* Motschulsky, 1845) ;
   (ii) the specific name *aeneus* De Geer, 1774, as published in the binomen *Hydrophilus aeneus* ;

(b) all designations of a type-species for the nominal genus *Creniphilus* Horn, 1890, made prior to the present Ruling are hereby set aside and the nominal species *Hydrobius rufiventris* Horn, 1873, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Anacaena* Thomson, 1859 (gender : feminine), type-species, by monotypy, *Hydrophilus globulus* Paykull, [1798] (Name No. 1393) ;

(b) *Crenitis* Bedel, 1881 (gender : masculine), type-species, by monotypy, *Hydrobius punctatostriatus* Letzner, [1841] (Name No. 1394) ;

(c) *Creniphilus* Horn, 1890 (gender : masculine), type-species, by designation under the plenary powers in (1)(b) above, *Hydrobius rufiventris* Horn, 1873 (Name No. 1395) ;

(d) *Paracymus* Thomson, 1867 (gender : masculine), type-species, by monotypy, *Hydrophilus aeneus* Germar, 1824 (Name No. 1396).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *globulus* Paykull, [1798], as published in the binomen *Hydrophilus globulus* (type-species of *Anacaena* Thomson, 1859) (Name No. 1702) ;

(b) *punctatostriatus* Letzner, [1841], as published in the binomen *Hydrobius punctatostriatus* (type-species of *Crenitis* Bedel, 1881) (Name No. 1703) ;

(c) *rufiventris* Horn, 1873, as published in the binomen *Hydrobius rufiventris* (type-species of *Creniphilus* Horn, 1890) (Name No. 1704) ;

(d) *aeneus* Germar, 1824, as published in the binomen *Hydrophilus aeneus* and as validated under the plenary powers under (1)(a)(ii) above (type-species of *Paracymus* Thomson, 1867) (Name No. 1705).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified :

(a) *Creniphilus* Motschulsky, 1845 (as suppressed under the plenary powers in (1)(a)(i) above) (Name No. 1320) ;

(b) *Crenephilus* Wickham, 1895 (an erroneous subsequent spelling of *Creniphilus* Horn, 1890) (Name No. 1321);
(c) *Crenophilus* J. L. R. Agassiz, 1846 (an unjustified emendation of *Creniphilus* Motschulsky, 1845) (Name No. 1322);
(d) *Crenophilus* J. L. R. Agassiz, 1848 (an unjustified emendation of *Creniphilus* Motschulsky, 1845) (Name No. 1323);
(e) *Crenophilus* d'Orchymont, 1942 (an unjustified emendation of *Creniphilus* Horn, 1890) (Name No. 1324);
(f) *Cryniphilus* Motschulsky, 1845 (an invalid original spelling of *Creniphilus* Motschulsky, 1845) (Name No. 1325).

(5) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *aeneus* De Geer, 1774, as published in the binomen *Hydrophilus aeneus* (suppressed under the plenary powers in (1)(a)(ii) above) (Name No. 609);
(b) *aeneus* Dejean, 1821, as published in the binomen *Hydrophilus aeneus* (a *nomen nudum*) (Name No. 610).

HISTORY OF THE CASE (Z.N.(S.) 752)

Mr. J. Balfour-Browne (British Museum (Natural History), London) submitted a first draft of his application in the present case under cover of a letter dated 12 February 1953 to Mr. Hemming (then Secretary to the Commission). Considerable correspondence ensued on the complexities of the case, and the final draft was sent to the printer on 22 November 1954, and was published on 31 January 1955 (*Bull. zool. Nomencl.* **11** : 49–55).

On 11 November 1955, Professor J. Chester Bradley, who had previously corresponded with Mr. Hemming on the case, submitted a set of proposals alternative to those put forward by Mr. Balfour-Browne, concerned in particular with the date, authorship and spelling of the generic name principally involved. This led to further correspondence between Mr. Balfour-Browne, Professor Bradley and the Office of the Commission, and it was eventually found necessary to submit the two alternative sets of proposals to the Commission for a choice. This procedure is explained in the following report, circulated to the Commission by Mr. R. V. Melville, then Assistant Secretary to the Commission:

" This report presents to the Commission two conflicting sets of proposals in the present case, which concerns primarily the Coleopteran generic name *Creniphilus* (or *Crenophilus*) and the spelling, authorship and date to be attributed to it. The original application, by Mr. J. A. Balfour-Browne (British Museum (Natural History), London), was published in *Bull. zool. Nomencl.* **11** : 49–55, 31 January 1955.

" 2. No comments on Mr. Balfour-Browne's proposals were received in time for publication in the *Bulletin*, but Professor Chester Bradley, after correspondence with the office of the Commission, submitted the following comments and alternative proposals on 11 November 1955:

' To complete Mr. Balfour-Browne's application it appears to be necessary to add to para. 15, sub-paragraph (i) on p. 54 the following :

> 'To set aside the designation by D'Orchymont, 1942, of *Hydrobius digestus* Leconte, 1855, to be the type-species of *Crenophilus* (and to add for safety's sake) and all other designations of a type-species for that genus.

'(It should be noted that under the Rules in 1942 it was correct to attribute the genus to Horn, and the selection of *digestus* Leconte to be the type-species was valid.)

'As the application stands, it is a request that the Commission adopt under its plenary powers an emendation (*Crenophilus*) that was made in 1846 for what was at that time (but not under the present rules) a *nomen nudum*, then was again proposed only 12 years ago as an emendation on etymological grounds of the same name after it had been re-introduced and validated by Horn. It is also a request to suppress a taxonomic genus proposed in 1845, which has been known and used by Coleopterists since its reintroduction by Horn 75 years ago, and to validate it under the emended name *Crenophilus* d'Orchymont, but with a type-species different from the one designated by that author. Such drastic action is not necessary to continuity and universality and would be liable to subject the Commission to criticism. The only really necessary actions under the plenary powers in connection with this taxonomic genus seem to be to change the type-species and to validate the action by d'Orchymont, 1942, in attributing the genus to Horn, 1890, an act that was correct under the Rules at the time that it was made. I therefore wonder whether the following would be acceptable to Mr. Balfour-Browne as a substitute for his proposal (*Bull. zool. Nomencl.* 1955, **11** : 54, para. 15) :

'To request the International Commission

(1) to use its plenary powers :

(a) to suppress the generic name *Creniphilus* Motschulsky, 1845 (a valid emendation of *Cryniphilus*) for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(b) to validate *Creniphilus* as a generic name as from Horn, 1890 ;

(c) to set aside the designation by d'Orchymont, 1942, of *Hydrobius digestus* Leconte, 1855[1] to be the type-species of *Crenophilus* and therefore of *Creniphilus* Horn, 1890, for which *Crenophilus* was proposed as a substitute name, and to set aside all other designations of a type-species for that genus prior to the present time ;

(d) to designate *Hydrobius rufiventris* Horn, 1873, to be the type-species of *Creniphilus* Horn, 1890 ;

(e) to suppress the specific name *aeneus* De Geer, 1774, as published in the combination *Hydrophilus aeneus*, for the purposes both of the Law of Priority and of the Law of Homonymy ;

(2) as Mr. Balfour-Browne's proposal except for :

(c) *Creniphilus* Horn, 1890 (gender : masculine), type-species, by designation under the plenary powers in (1)(d) above, *Hydrobius rufiventris* Horn, 1873;

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[1] 'Since *Crenophilus* was a substitute name for *Creniphilus*, the designation of *digestus* Leconte to be the type-species, being one of the species originally included by Horn, 1890, was a valid type-designation for each genus.'

(3) as Mr. Balfour-Browne's proposals

(4) as Mr. Balfour-Browne's proposals, but add

Crenophilus d'Orchymont, 1942, an invalid emendation of *Creniphilus* Horn, 1890.'

" 3. There is one technical defect in the first of these proposals, namely, that in order to validate *Creniphilus* Horn, 1890, *Creniphilus* Motschulsky, 1845, must be suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

" 4. Mr. Balfour-Browne, in replying on 16 December 1955 to Professor Chester Bradley's comment, drew attention to the technical defect just mentioned, and went on: ' The suggestion that my application is " a request to suppress a taxonomic genus proposed in 1845 which has been known and used by Coleopterists since its re-introduction by Horn 75 years ago . . . " does not bear much examination. *Creniphilus* Horn, 1890, as pointed out in my application, para. 8, has not been in continuous use for 75 years. Up to 1948 the nominal genus proposed by Motschulsky was a *nomen nudum*. Before Horn re-introduced the name validly in 1890, both the species included by name by Motschulsky had been removed by Thomson to two other genera, *Anacaena* (1859) and *Paracymus* (1867) respectively. Horn states explicitly (p. 268) that he was reviving an insufficiently described genus which " has for its types " the species " which are the types of *Paracymus* and *Anacaena* ". He goes on to give a key to 10 American species which he includes in the genus.

' D'Orchymont, 1942, redefined the nominal genus proposed by Horn (which had fallen into desuetude); excluded both the species named by Motschulsky and explicitly stated by Horn to be the types of Motschulsky's genus (and therefore implicitly the only two species on which Horn's validation of that genus could legitimately be based); selected as type-species one of the 10 American species included by Horn in his nominal genus; and emended the spelling of the name to *Crenophilus*. By these actions d'Orchymont drew attention to the fact that Horn's nominal genus included the elements of four taxonomic genera: *Anacaena* Thomson, 1859; *Paracymus* Thomson, 1867; *Crenitis* Bedel, 1881; and a genus containing two species for which d'Orchymont reserved the emended spelling of Horn's name *Creniphilus*. In view of Horn's explicit statement mentioned above, it is, I submit, difficult to argue that *Crenophilus* d'Orchymont is a substitute name for *Creniphilus* Horn. By selecting *Hydrobius digestus* Leconte as type, d'Orchymont effectively created a new genus. I feel, therefore, that Professor Bradley's criticisms have no substance.'

" 5. Mr. Balfour-Browne is, of course, mistaken in thinking that only one of the two species mentioned by name by Motschulsky in 1845 in connection with *Creniphilus* is eligible for selection as type-species of *Creniphilus* Horn, 1890. *Creniphilus* Motschulsky, 1845, was a *nomen nudum* and could not itself be the valid name for a nominal genus prior to 1948. When then validated as a result of the action of the Paris Congress, it could only be defined in one of two senses, in one of which it would be a senior synonym of *Anacaena* Thomson,

1867. As regards *Creniphilus* Horn, 1890, however, this was a valid nominal genus at the time of its establishment, and any of the nominal species included in it by Horn was equally eligible to be selected as its type-species by d'Orchymont in 1942.

" 6. The differences between the two sides in this case may therefore be expressed briefly as follows : Mr. Balfour-Browne wishes to validate *Crenophilus* as from the time when it first came into use (d'Orchymont, 1942) and to provide it with a type-species which will secure its taxonomic viability. Professor Chester Bradley wishes to validate *Creniphilus* as from the time when it was first validly proposed as a name (Horn, 1890) and concurs with Mr. Balfour-Browne's preference in regard to the type-species. Professor Chester Bradley considers that his alternative involves a less drastic use of the plenary powers than does Mr. Balfour-Browne's, but it is difficult to see why this is so, since both *Creniphilus* Horn and *Crenophilus* d'Orchymont have been objectively invalid homonyms since the validation in 1948 of *Creniphilus* Motschulsky, 1845 and *Crenophilus* J. L. R. Agassiz, 1846.

" 7. Both specialists agree that *Hydrobius rufiventris* Horn, 1873, should become the type-species of the genus in question. This can only be secured by the use of the plenary powers in either case, for (a) it was not included in *Crenophilus* by d'Orchymont, and (b) although included in *Creniphilus* by Horn, it was not the species first validly designated as type-species (by d'Orchymont, 1942)."

DECISION OF THE COMMISSION

Voting Paper (59)9 was circulated with the above report to the members of the Commission on 31 July 1959 under the Three-Month Rule, and was divided into two parts. In Part 1 the members were invited to vote for or against the use of the plenary powers in connection with the authorship, date, and spelling of the generic name *Creniphilus* (or *Crenophilus*). In Part 2 a vote was requested either for Alternative A (Mr. Balfour-Browne's proposals in *Bull. zool. Nomencl.* **11** : 54–55) or for Alternative B (Professor Chester Bradley's proposals as set out in paragraph 2 and corrected in paragraph 3 of the circulated report). At the close of the Voting Period on 31 October 1959, the state of the voting was as follows :

Part 1. Affirmative Votes—twenty-four (24) received in the following order : Vokes, Boschma, Hering, Riley, Mertens, Hemming, do Amaral, Miller, Bodenheimer, Mayr, Prantl, Dymond, Bonnet, Hankó, Lemche, Obruchev, Key, Uchida, Brinck, Bradley, Kühnelt, Jaczewski, Tortonese, Stoll.

Negative Votes—two (2) : Holthuis, Poll.

Leave of Absence—none (0).

Votes not returned—one (1) : Cabrera.

Part 2. For Alternative A—11 votes : Riley, Hemming, Bodenheimer, Prantl, Bonnet, Hankó, Key, Uchida, Brinck, Kühnelt, Tortonese.

For Alternative B—13 votes : Vokes, Boschma, Hering, Mertens, do Amaral, Miller, Mayr, Lemche, Obruchev, Dymond, Bradley, Jaczewski, Stoll.

In opposing the use of the plenary powers in this case, Dr. Holthuis wrote (on 3 August 1959) : " I cannot escape the impression that too much use of the plenary powers for such a minor matter is asked. If I am correct, the name *Creniphilus/Crenophilus* has only been used sporadically before 1942, and though it is stated by Mr. Balfour-Browne that since 1942 *Crenophilus* ' has been generally accepted ', I do not think that it will have gotten so well established in that time that its removal would do much harm. Though I am not at all acquainted with this group of animals, the simplest way out of the muddle seems to be the suppression of *Creniphilus* Motschulsky, 1845, and *Crenophilus* Agassiz, 1846, for the purposes of priority but not for those of homonymy, so that an altogether new name can be used for the genus in question. Another solution might be to designate *Hydrobius rufiventris* Horn to be the type-species of *Creniphilus* Motschulsky, 1845. In the former case only three and in the latter two actions under the plenary powers instead of five or six are necessary. I do not think that the complicated actions proposed in the Voting Paper are necessary at all."

Mr. R. V. Melville replied on 5 August 1959 as follows : " I think that it would be a mistake to regard the conservation of *Creniphilus* (or *Crenophilus*) as the central issue in this case. There is no doubt that this name is in general use (I take Mr. Balfour-Browne's word for this), but as you say, the fact that it has only been revived rather recently from long neglect means that it is not itself of fundamental importance. The point as I see it is that the sense in which that name is currently in use is contrary to the Rules, and that it is open to any zoologist to pervert stability by applying the Rules strictly so as to displace either *Anacaena* Thomson, 1859, or *Paracymus* Thomson, 1867. This situation arises from the Paris broadening of the definition of ' indication '. I accept Mr. Balfour-Browne's argument, that the best solution is to preserve *Anacaena* and *Paracymus* in their current senses (which is also their same value as ' nominal genera'), and to fix *Creniphilus* in the sense in which it has recently made itself acceptable.

" If your first suggestion were accepted, to invent a new name for the genus now known as *Creniphilus*, then the plenary powers would have to be used to suppress *Creniphilus* Motschulsky, 1845, and *Crenophilus* Agassiz, 1846, for the purposes of priority. This would reduce from five to two the uses of the plenary powers in connection with the taxonomic genus *Crenophilus* (the use of those powers in connection with the specific name *aeneus* is a separate question). But I doubt if such a solution would meet with approval from coleopterists, because *Creniphilus/Crenophilus* has in fact been current in the literature, as a synonym if not as a valid name, for a great many years, so that the mere sound of the name is familiar. Such action might produce stability in the next generation, or the next succeeding one, but I doubt if it would be helpful to Mr. Balfour-Browne and his contemporaries.

" Your second suggestion, to use the plenary powers to designate *Hydrobius rufiventris* as the type-species of *Creniphilus* Motschulsky, 1845, involves to my way of thinking a more drastic, though less subdivided, use of the plenary powers than that actually proposed. My point here is one that has, I think, conditioned a number of past decisions of the Commission but which has only been put into words by the London Congress for the first time, namely, that an action taken in accordance with the Rules ought not to be upset unnecessarily.

" D'Orchymont's action in 1942, followed by subsequent users, was in accordance with the Rules then in force. It is therefore in the spirit of the Rules to conserve the effects of that action, but it would seem to be a waste of effort to annul it simply in order to produce the same result by different means. I see nothing extraordinary in d'Orchymont's action having become well established in 17 years, for the generic name in question was undoubtedly well known historically to most coleopterists, and the high reputation of d'Orchymont's revision from the taxonomic angle would suggest that attempts to change his nomenclature when this was in accord with the Rules when he wrote would meet with considerable opposition.

" Surely one of the central factors in this case is that *Crenophilus* (and *Creniphilus*) must be disposed of in such a way that that name is stabilized in the sense which it has now acquired, and so that *Anacaena* and *Paracymus* are left undisturbed. The way that Mr. Balfour-Browne adopts to this end seems to me more logical and more likely to be understood and accepted by coleopterists, than the way you propose. His way may seem to involve a rather extensive use of the plenary powers, but it seems to me a less intensive and a less extreme use of those powers than your way."

Dr. Holthuis wrote on 7 August 1959 : " Now that I know that it is desirable to continue to use the generic name *Creniphilus* or *Crenophilus* in entomology, I withdraw the first suggestion made in my letter of 3 August. Still, I do not see any use in validating *Crenophilus* d'Orchymont, 1942 ; this name has not been intended by d'Orchymont as a new name, but only was cited by him as from Horn, 1890, while Horn did nothing but revive Motschulsky's name. As stated in your letter d'Orchymont's action in 1942 was an action taken in accordance with pre-existing Rules. To place *Crenophilus* d'Orchymont on the Official List is as much a deviation from d'Orchymont's action (as he treated the genus as from Horn, 1890) as is the placing of *Creniphilus* Motschulsky on the List. I still believe that it is more in the interests of stability to have the oldest valid name, *Creniphilus* Motschulsky, placed on the List without recourse to the plenary powers than it is to validate *Crenophilus* d'Orchymont by having to suppress a host of earlier homonyms and synonyms under these plenary powers. In the end it will make extremely little difference whether the genus will be known as *Creniphilus* Motschulsky, 1845, or *Crenophilus* d'Orchymont, 1942, the more so as in either case the type-species has to be designated under the plenary powers. The chances that Motschulsky's name will be invalidated by older names are far smaller than those with d'Orchymont's name.

" Summarizing, I may state that I am not willing to give my vote for the use of the plenary powers to suppress the name *Creniphilus* Motschulsky, 1845, but that I have no objection in granting these powers for (1) the designation of *Hydrobius rufiventris* Horn, 1873, as the type of Motschulsky's genus, and (2) the suppression of the specific name *aeneus* de Geer, 1774, as published in the combination *Hydrophilus aeneus*."

Mr. Melville replied on 18 August 1959 : " You wish to see either *Creniphilus* Motschulsky, 1845, or *Crenophilus* Agassiz, 1846, validated, but neither of these names has even been in use, nor is there any evidence of a wish among coleopterists for their revival. Moreover, the type-species would have to be one which not only was not an originally included species, but was not even proposed until 28 years later, from a completely different region. This is what seems to me a too intensive use of the plenary powers.

" It also seems to me that *Creniphilus* Horn and *Crenophilus* d'Orchymont cannot be treated as names of the same nominal genus, partly because of the spelling difference, and partly because of the fact that d'Orchymont deliberately excluded the species which Horn regarded as the ' types ' of Motschulsky's genus. *Crenophilus* d'Orchymont is thus a distinct nominal genus in its own right, and Mr. Balfour-Browne's proposals seem to me the least devious and to involve the least energetic use of the plenary powers."

Dr. Holthuis's last word on the subject was sent on 27 August 1959 : " I still cannot share your view that *Crenophilus* d'Orchymont is a distinct genus. D'Orchymont himself cites it as *Crenophilus* Horn, 1890, and makes it very clear that he did not intend at all to establish a new genus. The difference in spelling from *Creniphilus* Horn is an intentional, though invalid, emendation as is distinctly indicated by d'Orchymont himself. If d'Orchymont indicated a type-species for the genus different from that used by Horn, he made a taxonomic error, which does not in the least make his generic name valid, it remains an objective synonym of *Creniphilus* Horn, 1890.

" I do not wish to withdraw my Voting Paper in order to make a proposal of my own . . . I stick to my negative vote as I see that as the better of the two alternatives between which we can choose. I only wanted to indicate to what kind of proposal I could have given my affirmative vote. It is my firm belief that in order to let the plenary powers keep their value they should not be used too freely, especially in matters of minor importance."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion.

aeneus, *Hydrophilus*, Dejean, 1821, *Cat. Coléopt.* : 51
aeneus, *Hydrophilus*, De Geer, 1774, *Mém. Hist. Ins.* **4** : 379, pl. 15, figs. 5–7
aeneus, *Hydrophilus*, Germar, 1824, *Ins. Spec. nov.* **1** : 96
Anacaena Thomson, 1859, *Skand. Coleopt.* **1** : 18
Crenephilus Wickham, 1895, *Canad. Ent.* **27** : 214
Creniphilus Horn, 1890, *Trans. amer. ent. Soc.* **17** : 262, 265
Creniphilus Motschulsky, 1845, *Bull. Soc. imp. Nat. Moscou* **18**(i) : 32, errata
Crenitis Bedel, 1881, *Faune Coléopt. Bassin Seine* **1** : 306, note
Crenophilus J. L. R. Agassiz, 1846, *Nomencl. zool. Index univ.* : 103
Crenophilus J.L.R. Agassiz, 1848, *Nomencl. zool. Index univ.* (another edition): 299
Crenophilus d'Orchymont, 1942, *Mém. Mus. roy. Hist. nat. Belg.* (2) **27** : 28
Cryniphilus Motschulsky, 1845, *Bull. Soc. imp. Nat. Moscou* **18**(i) : 32
globulus, *Hydrophilus*, Paykull, [1798], *Fauna svec.*, Ins. **1** : 188
Paracymus Thomson, 1867, *Skand. Coleopt.* **9** : 119
punctatostriatus, *Hydrobius*, Letzner, [1841], *Uebers. Arb. schles. Ges.* **1840** : 81
rufiventris, *Hydrobius*, Horn, 1873, *Proc. amer. phil. Soc.* **13** : 135

CERTIFICATE

We certify that the votes cast on Voting Paper 59(9) were cast as set out above, that the proposals set out in the voting paper have been adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 583.

N. D. RILEY
Hon. Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature

London
8 *January* 1960

OPINION 584

ADDITION TO THE OFFICIAL LIST OF SPECIFIC NAMES IN ZOOLOGY OF THE SPECIFIC NAME *DUPONCHELI* STAUDINGER, 1871, AS PUBLISHED IN THE BINOMEN *LEUCOPHASIA DUPONCHELI* (CLASS INSECTA, ORDER LEPIDOPTERA) AND ASSOCIATED MATTERS

RULING.—The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *duponcheli* Staudinger, 1871, as published in the binomen *Leucophasia duponcheli* and as interpreted by the lectotype selected by Hemming & Sheljuzhko, 1958 (Name No. 1706) ;

(b) *sinapis* Linnaeus, 1758, as published in the binomen *Papilio sinapis* (type-species, by monotypy, of *Leptidea* Billberg, 1820) (Name No. 1707) ;

(c) *chlorographa* Hübner, 1818, as published in the binomen *Leptosia chlorographa* (type-species of *Leptosia* Hübner, 1818) (Name No. 1708) ;

(d) *nina* J. C. Fabricius, 1793, as published in the binomen *Papilio nina* (Name No. 1709).

(2) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified :

(a) *lathyri* Hübner, [1819], as published in the binomen *Leptosia lathyri* (a junior objective synonym of *sinapis* Linnaeus, 1758, as published in the binomen *Papilio sinapis*) (Name No. 611) ;

(b) *lathyri* Hübner, [1823], as published in the binomen *Papilio lathyri* (not a new name but a later, though different, usage of *Papilio lathyri* Hübner, [1819]) (Name No. 612) ;

(c) *lathyri* Duponchel, 1834, as published in the binomen *Pieris lathyri* (not a new name but a later, though different, usage of *Papilio lathyri* Hübner, [1819], based on a misidentification of that species) (Name No. 613) ;

(d) *senapis* Hübner, [1799–1800], as published in the binomen *Papilio senapis* (an erroneous subsequent spelling of *sinapis* Linnaeus, 1758, as published in the binomen *Papilio sinapis*) (Name No. 614).

(3) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Leptidea* Billberg, 1820 (gender : feminine), type-species, by monotypy, *Papilio sinapis* Linnaeus, 1758 (Name No. 1397) ;

(b) *Leptosia* Hübner, 1818 (gender : feminine), type-species, by selection by Butler, (1870), *Leptosia chlorographa* Hübner, 1818 (Name No. 1398).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified

(a) *Leptidia* Scudder, 1875 (an erroneous subsequent spelling of *Leptidea* Billberg, 1820) (Name No. 1326);

(b) *Leptoria* Stephens, 1835 (an erroneous subsequent spelling of *Leptosia* Hübner, 1818) (Name No. 1327);

(c) *Leucophasia* Stephens, 1827 (a junior objective synonym of *Leptidea* Billberg, 1820) (Name No. 1328).

(5) The family-group name LEPTIDEIDI R. Verity, 1947 (type-genus: *Leptidea* Billberg, 1820) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 325.

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) LEPTIDIINAE Bryk, 1955 (type-genus: *Leptidea* Billberg, 1920) (an erroneous subsequent spelling of LEPTIDEINAE Verity, 1947) (Name No. 325);

(b) LEPTOSIIDI Wheeler, 1903 (invalid under Declaration 28 because based on an incorrect determination of the type-genus *Leptosia* Hübner, 1818) (Name No. 326).

(7) The specific names placed on the Official Index in (2)(b) and (2)(c) above are misidentifications and as such are taxonomic rather than nomenclatorial errors. They would not normally be subject to placing on the Official Index of Rejected and Invalid Specific Names in Zoology. Exception is made in this instance, which is not to be quoted as a precedent, because the widespread use of *Papilio lathyri* Hübner, [1823], and of *Pieris lathyri* Duponchel, 1834, makes it desirable, for the convenience of taxonomists, in this instance to place them on the Index.

HISTORY OF THE CASE (Z.N.(S.) 1324)

A joint application on the present case by Mr. Francis Hemming and Dr. Leo Sheljuzhko was submitted on 18 February 1958. It was sent to the printer on 20 February and was published on 24 November 1958 (*Bull. zool. Nomencl.* **16**: 81–87).

Support for the application was received from Professor E. M. Hering (Zoologisches Museum, Humboldt-Universität, Berlin, Germany).

DECISION OF THE COMMISSION

On 31 July 1959 the members of the Commission were invited to vote under the Three-Month Rule, on Voting Paper (59)10, either for or against the proposal set out in *Bull. zool. Nomencl.* **16**: 86–87. At the close of the Voting Period on 31 October 1959 the state of the voting was as follows:

Affirmative Votes—twenty-seven (27), received in the following order: Holthuis, Vokes, Boschma, Hering, Riley, Jaczewski, Mertens, Hemming, do Amaral, Bodenheimer, Miller, Mayr, Prantl, Dymond, Lemche, Hankó, Bonnet, Obruchev, Key, Brinck, Uchida, Bradley, Kühnelt, Tortonese, Cabrera, Stoll, Poll.

Negative Votes—none (0).

Leave of Absence—none (0).

Votes not returned—none (0).

Dr. Henning Lemche remarked on his Voting Paper : " With the exception of the reference in par. (1)(a) to a ' restricted locality '. No definitions should be double, and the lectotype covers the purpose. Type-localities enter the picture only when morphologically inseparable taxa (normally subspecies) are to be defined ".

Professor J. Chester Bradley said : " I vote against including (2)(b) and (c) because these were not proposed as new names but are misidentifications. Such should be noted by taxonomists, but are not really matters of nomenclature, and it would be bad precedent to open up the Index to names believed by taxonomists to be misapplications of a recognized name ". After correspondence on this point, it was agreed at Professor Chester Bradley's request to add a rider which appears as paragraph (7) of the present Ruling.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion.

chlorographa, *Leptosia*, Hübner, 1818, *Zutr. z. Samml. exot. Schmett.* **1** : 13, pl. 9, figs. 47, 48

duponcheli, *Leucophasia*, Staudinger, 1871, *in* Staudinger & Wocke, *Cat. Lep. Europ. Faunengeb.* : 5

lathyri, *Pieris*, Duponchel, 1834, *in* Godart, *Hist. nat. Lep. France*, Suppl. **1** (Diurnes) : 274, pl. 43, figs. 4, 5

lathyri, *Papilio*, Hübner, [1819], *Verz. bekannt. Schmett.* : 95

lathyri, *Papilio*, Hübner, [1823], *Samml. europ. Schmett.*, pl. Pap. 160, figs. 797, 798

Leptidea Billberg, 1820, *Enum. Ins. Mus. Billberg* : 76

LEPTIDEIDI Verity, 1947, *Farfalle diurne d'Italia* **3** : 114

Leptidia Scudder, 1875, *Proc. amer. Acad. Arts Sci.* (Boston) **10** : 204

LEPTIDIINAE Bryk, 1955, *Ent. Tidskr.* **76** : 19

Leptoria Stephens, 1835, *Ill. brit. Ent.*, Haustellata **4** : 404

Leptosia Hübner, 1818, *Zutr. z. Samml. exot. Schmett.* **1** : 13

LEPTOSIIDI Wheeler, 1903, *Butts. Switz.* : 65, 147

Leucophasia Stephens, 1827, *Ill. brit. Ent.*, Haustellata **4** : 24

nina, *Papilio*, J. C. Fabricius, 1793, *Ent. syst.* **3**(1) : 194

senapis, *Papilio*, Hübner, [1799–1800], *Samml. europ. Schmett.* : 64, pl. Pap. 82, figs. 410, 411

sinapis, *Papilio*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 468

The following is the original reference for the subsequent designation of a type-species for a nominal genus of which the name is placed on the Official List in the present Ruling :

for *Leptosia* Hübner, 1818	Butler, 1870, *Cist. ent.* **1** : 54

The following is the original reference for the designation of a lectotype for a nominal species of which the name is placed on the Official List in the present Ruling:

for *Leucophasia duponcheli* Staudinger, 1871	Hemming, F. & Sheljuzhko, L., 1958, *Bull. zool. Nomencl.* **16** : 84

CERTIFICATE

We certify that the votes cast on Voting Paper (59)10 were cast as set out above, that the proposals set out in the Voting Paper have been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 584.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature

London
25 *March* 1960

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE NOMINAL GENUS *FENESTELLA* LONSDALE, 1839 (CLASS BRYOZOA) IN HARMONY WITH ACCUSTOMED USAGE.

Z.N.(S.) 154

By M. K. Elias and the late G. E. Condra (*University of Nebraska, Lincoln, Nebraska, U.S.A.*)

The present application, which has passed through many vicissitudes since we first approached Mr. Hemming (then Secretary to the Commission) in 1944, is concerned with the stabilization in its accustomed sense of the generic name *Fenestella* Lonsdale, 1839, the type-genus of the long-lived and important family FENESTELLIDAE, and the best known genus of Palaeozoic Bryozoa. The heart of the problem concerns the type-species of the genus, a question which has been widely discussed in the literature, and which we consider is most simply solved on the assumption that the genus is based on a misidentified type-species. Collateral aspects of the case involve names in the Pelecypoda and Insecta (Hemiptera). We wish to thank Mr. Hemming for much assistance in the preparation of this paper.

2. The generic name *Fenestella* Lonsdale, 1839, is a junior homonym of *Fenestella* [Röding], 1798, but this homonymy is not a serious problem in the present case. According to Winckworth, 1945 (*Proc. malac. Soc. London* **26** : 140), the type-species of *Fenestella* [Röding], 1798 (*Mus. Bolten.* **2** : 193) is *Anomia ephippium* Linnaeus, 1758, by subsequent designation by J. E. Gray, 1847 (*Proc. zool. Soc. London* **1847** : 201, no. 755). This is not strictly true, for in the passage referred to Gray expressly designated *Anomia ephippium* as the type-species of *Anomia* Linnaeus, 1758, and merely cited *Fenestella* [Röding] in the synonymy of *Anomia* ; this was not sufficient to designate the type-species of *Fenestella*. Nevertheless, Winckworth, by his statement that Gray had selected the type-species, and by himself accepting that designation, is to be considered himself to have designated the type-species. By so doing, he rendered *Fenestella* [Röding], 1798—a name never in use as a valid name since its first publication—a junior objective synonym of *Anomia* Linnaeus, 1758. Nevertheless, the name still possesses its rights under the Law of Homonymy, and the plenary powers must in consequence be used to suppress it.

3. The generic name *Fenestella* was next published as a new name by Lonsdale, 1839 (*in* Murchison, *Sil. Syst.* : 677) for a genus of Silurian Bryozoa. He briefly described four species which he referred to the genus, but he did not designate or indicate any of them as the type-species. The four included species were : (1) " *Fenestella antiqua* Lons." (" *Gorgonia antiqua*? Goldfuss ") ; (2) " *Fenestella milleri* Lons." ; (3) " *Fenestella prisca* Lons." (" *Retepora prisca* Goldfuss") ; and (4) " *Fenestella reticulata* Lons." ("*Retepora reticulata* ? Hisinger ").

4. *Fenestella milleri* Lonsdale is unequivocally a new binomen incorporating a new specific name, but the status of the other three specific names seems

to have been misunderstood. In the case of the third and fourth species, these seem always to have been treated as transfers by Lonsdale of *Retepora prisca* Goldfuss and (doubtfully) *R. reticulata* Hisinger respectively to his new genus *Fenestella*. There is no reason why the first species should not be interpreted in the same way, but some authors have apparently considered that *antiqua* Lonsdale was a new name applied to a new species doubtfully identified with *Gorgonia antiqua* Goldfuss, both species being referred to the same genus, *Fenestella* ; at least, it is difficult to see on what other grounds the specific name *antiqua* Lonsdale can have been treated as a junior [secondary] homonym of the specific name *antiqua* Goldfuss. It seems more consistent to take the view that Lonsdale identified his material with Goldfuss's species, but was uncertain whether that species was to be referred to his new genus or not.

5. The first designation of a type-species for *Fenestella* was made by W. King, 1849 (*Ann. Mag. nat. Hist.* (2) **3** : 388–390), and the species so designated was cited as " *Fenestella antiqua* Lonsdale ". In accordance with the view expressed in the preceding paragraph, the nominal species represented by this name must be taken to be [*Gorgonia*] *antiqua* Goldfuss, and it may be noted that Spjeldnaes, 1957 (*J. Paleont.* **31** : 675), also holds that it is Goldfuss's species that was designated by King (the " 1850 " reference given by Spjeldnaes is presumably to King's Monograph of the Permian Fossils of England (*Palaeont. Soc.*), where, on p. 35, King reiterated his previous designation). As has already been seen, Lonsdale only doubtfully referred Goldfuss's species to his new genus *Fenestella*, so that King's designation is invalid.

6. Since, as noted in paragraph 3 above, Lonsdale placed the nominal species *Gorgonia antiqua* Goldfuss, 1829 (*Petref. German.* **1**(1) : 99) with doubt in the synonymy of *Fenestella antiqua* Lonsdale, 1839, the question arose whether Lonsdale's species was the same as that of Goldfuss. The question is of importance, since Goldfuss's species belongs to the Devonian System (of the Eifel, Germany), whereas Lonsdale's was described from the Silurian (Wenlock Series) of Dudley, England. Subsequent investigations showed that two species were involved :

(a) M'Coy, 1844 (*Syn. Char. Carb. Foss. Ireland* : 200) stated that the true *Gorgonia antiqua* Goldfuss " does not probably occur in the Silurian strata ".

(b) In 1850 d'Orbigny (*Prodr. Paléont.* **1** : 44) expressly proposed the replacement name *Fenestrella* [sic] *subantiqua* for " *F. antiqua* Lonsdale, 1839 . . . (*non* Goldfuss, 1838) ".

(c) Shrubsole, 1880 (*Quart. J. geol. Soc. London* **36** : 241–254) and 1881 (*ibid.* **37** : 180) clearly showed that *Fenestella antiqua* Lonsdale, from the Silurian, was not the same species as *Gorgonia antiqua* Goldfuss from the Devonian. Shrubsole concluded that the latter was the same species as *Fenestella plebeia* M'Coy, 1844 (*op. cit.* : 203) from the Lower Carboniferous of Ireland.

It is therefore clear that the species intended by King when he designated the type-species of *Fenestella* is not the species that he actually cited, and it is for this reason that we think that *Fenestella* should be regarded as a genus based on a misidentified type-species.

7. As Spjeldnaes points out (*op. cit.*), it is not clear whether the reason why d'Orbigny proposed his replacement name was that he considered Lonsdale's specific name a junior homonym of Goldfuss's, or that he considered Lonsdale to have committed a misidentification of the latter species. This, however, is not important, since in either case the species in question cannot continue to bear the name under which it was cited by Lonsdale (which must be read as "*antiqua* Goldfuss"). D'Orbigny's specific name *subantiqua* thus becomes the valid name for the species that was actually before Lonsdale when he established *Fenestella*, and that was intended by King when he designated the type-species.

8. Ulrich, 1890 (*Geol. Surv. Illinois* (Paleozoic Bryozoa) **8** : 395) referred to *Fenestella plebeia* M'Coy, 1844, as "the accepted type of *Fenestella* Lonsdale". In this he was followed by Nickles & Bassler, 1900 (*Bull. U.S. geol. Surv.* **173** : 37), and by Nikiforova, 1938 (*Paleontology of USSR* **4**(5) : fasc. 1). This species was not one of the species originally included in *Fenestella* and is therefore not eligible for designation as type-species. Shrubsole (1880) considered that this was only a synonym of *Gorgonia antiqua* Goldfuss, but this is equally ineligible, having been referred to *Fenestella* by Lonsdale only in a doubtful manner. Toots, 1951 (*Neues Jahrb. Geol. Paläont., Abh.* **93** : 237), has shown that the type of Goldfuss's species is lost and that the species cannot be recognized from the description and figures. It would, therefore, be most undesirable if the species actually cited by Lonsdale (and by King) were to be designated under the plenary powers as the type-species of *Fenestella*.

9. In 1935, Bassler (*Foss. Cat.* (1) Animalia, **67** : 111) suggested that, since *Fenestella* Lonsdale, 1839, was a junior homonym of *Fenestella* [Röding], 1798, the bryozoan genus should in future be known by the name *Fenestrellina* d'Orbigny, 1849 (*Rev. Mag. Zool.* (2) **3** : 501). This suggestion was followed by some authors, but the present applicants objected to the change in nomenclatorial usage involved and gave notice of their intention to apply to the Commission for the preservation of *Fenestella* Lonsdale, 1839 (Condra & Elias, 1941, *J. Paleont.* **15** : 565–566). In that paper we pointed out further that the type-species of *Fenestrellina*, by original designation, is *Fenestella crassa* M'Coy, 1844 (*op. cit.* : 501), and that this possessed features which were not characteristic of *Fenestella plebeia* M'Coy, 1844, the "accepted type" of *Fenestella* : "*F. crassa* M'Coy is a *Thamniscus*-like form, whereas *F. plebeia* M'Coy, 1844, is a species with short and regular fenestrules". We pointed out that Shrubsole (1881 : 186), the only author to re-examine topotypes (if not the actual type-specimen itself) of *F. crassa*, had expressed the view that this species did not belong to *Fenestella*, but "to another fenestrate genus of Polyzoa". We concluded, after an analysis of the illustrations and descriptions of M'Coy and Shrubsole, that "*F. crassa*, together with at least three more known Lower Carboniferous species . . . constitute a compact group, which deserves to be separated into a distinct genus, which would have the same morphologic relation to *Fenestella* Lonsdale as *Thamniscus* King has to *Polypora* M'Coy". We pointed out that, if it were accepted that *Fenestrellina* d'Orbigny was a genus distinct from *Fenestella* Lonsdale, the question of the

name to be applied to the latter genus still remained to be settled (we were not then aware of the circumstances set forth in paragraph 2 above). Modern Russian workers have not adopted Bassler's proposal to use *Fenestrellina* in place of *Fenestella*, nor do they accept our view that the two names denote distinct genera.

10. Dr. R. S. Bassler informed us (*in litt.* 24.ii.1941) that he believed that Lonsdale had actually figured a Wenlock specimen for his *Fenestella antiqua*, which he considered to be a new species that had been renamed *Fenestella subantiqua* by d'Orbigny. He suggested that this should be accepted as the type-species, and that since *Fenestella* was an invalid homonym, it should be replaced by *Utropora* Počta, 1894 (*in* Barrande, *Syst. Sil. centre Bohême* **8** : 75), a name originally published for a subgenus of *Fenestella*. In 1944 (*Geol. Soc. Amer., Spec. Paper* **53** : 17–19) we examined this suggestion and rejected it on taxonomic grounds, since in our view the characters of *Utropora* distinguish it from *Fenestella* as a separate genus rather than as a subgenus. We accepted, however, his suggestion that *F. subantiqua* d'Orbigny be accepted as the type-species of *Fenestella*, after being assured by Bassler that the U.S. National Museum possesses topotypes of that species from the Wenlock which, in his opinion, undoubtedly belonged to the species and which had sufficiently well preserved inner structure to assure a complete re-investigation in line with current taxonomic requirements. We had especially stressed the importance of a type-species being chosen of which the inner structure was known, and it was the lack of an assurance that the inner structure of *F. subantiqua* could be established that induced our previous suggestion, no longer maintained, that *F. plebeia* M'Coy be accepted as type-species of *Fenestella*.

11. Subsequently, Elias undertook a complete study of the topotypes of *F. subantiqua* at the U.S. National Museum, of which prepared specimens and thin sections were made by Dr. Helen Duncan, and he took this material to England for comparison with whatever types or topotypes were available in the principal scientific institutions of that country in July 1951. Dr. T. G. Miller (then of the Sedgwick Museum, Cambridge), a specialist in Palaeozoic Bryozoa, agreed that no undoubted topotypes of the species exist at that museum, but Elias found that the Hunterian Museum, Glasgow, Scotland, possessed one topotype that undoubtedly belongs to *F. subantiqua*, and this is even larger and better preserved than any from the U.S. National Museum. This specimen (Hunterian Museum No. D.229) was designated neotype by Elias in 1956 (*J. Paleont.* **30** : 317) with a full description (: 319–321) and illustrations (pl. 43, figs. 1–4) in conditions that meet all the requirements of the rules for a valid neotype-designation.

12. Spjeldnaes, 1957 (*op. cit.* : 675–676) has suggested that *Retepora reticulata* Hisinger, 1837, might be accepted as the type-species of *Fenestella*, since it is easily recognizable, was probably correctly identified by Lonsdale and has recently been redescribed (Hennig, 1906, *Arkiv för Zool.* **3**(10)). This species was, however, only doubtfully referred to *Fenestella* by Lonsdale and, as Spjeldnaes himself points out, is not a typical member of the genus, for it shows some affinities with the distinct genus *Septopora*. As an alternative, and because the majority of the species of *Fenestella* are of Carboniferous age,

he suggests that the Carboniferous *F. plebeia* M'Coy, 1844, be accepted. The other two species originally included in the genus, namely, *F. milleri* Lonsdale, 1839, and *Retepora prisca* Goldfuss, are the type-species of other genera of fenestellid Bryozoa. In our view, however, *Fenestella subantiqua* d'Orbigny, 1850, as defined by reference to the neotype designated by Elias in 1956, would serve admirably as the type-species, and would best preserve Lonsdale's original generic concept. We therefore request that the plenary powers be used to that effect. This action would not, so far as can be foreseen, disturb existing usage of the generic names *Fenestella*, *Fenestrellina* and *Utropora*.

13. The genus *Fenestella* Lonsdale, 1839, is at present placed in the family FENESTELLIDAE King, 1849, *Ann. Mag. nat. Hist.* (2) **3** : 388, and this name should now be placed on the Official List.

14. There remain certain incidental matters in the present case. The generic name *Fenestella* [Röding], 1798, was spelt *Fenestrella* by Gray, 1847 (*op. cit.*). *Fenestella* Lonsdale, 1839, was spelt *Fenestrella* by Girard, [1844], *Arch. wiss. Kunde Russland* (1843) **3** : 539, and twice by d'Orbigny, in 1849, *Rev. Mag. Zool.* (2) **3** : 501, and in 1850, *Prodr. Paléont.* **1** : 44. There is no means of telling whether these are to be regarded as erroneous subsequent spellings, or as emendations. If the latter, the assumption is implied that the name is derived from the Latin *fenestra, -ae* (window), a most apt analogy both for the fenestrate shell of the pelecypod *Anomia* and for the bryozoan *Fenstella*. D'Orbigny himself, however, reverted to the original spelling in a later work (1854, *in* Murchison, *Siluria* : 180), so that it seems possible to regard *Fenestrella* as an erroneous subsequent spelling on every occasion when it was used, rather than as an emendation. In the latter case, the emendation would be unjustified, since *Fenestella*, as originally spelled, is not defective in any way that calls for correction under the Rules.

15. The status of *Fenestrella* must be clarified because of the occurrence of the name in Insecta (Hemiptera). *Fenestrella* Osborn & Drake, 1916 (*Ohio State Univ. Bull.* **20** : 222) has *F. ovata* Osborn & Drake as type-species, by original designation. In 1922 Bergroth (*Ann. Soc. ent. Belgique* **62** : 152) considered that the generic name was invalid as a junior homonym of *Fenestrella* d'Orbigny, and proposed the replacement name *Drakella*. If *Fenestrella* of Gray, 1847, of Girard, [1844], and of d'Orbigny, 1849, 1850, are regarded as unjustified emendations, then they have rights under the Law of Homonymy, and *Fenestrella* Osborn & Drake is indeed an invalid junior homonym. But if they are erroneous subsequent spellings, then they have no status in nomenclature, and *Fenestrella* Osborn & Drake can stand. We are given to understand that the group of Hemiptera involved is a small one that has not as yet attracted the attention of anybody outside taxonomic circles, and we therefore suggest that the question of the name to be used for the Hemipteran genus in question be settled in the simplest way, if possible without the use of the plenary powers. For example, it would be possible, if the four earlier uses of *Fenestrella* were taken to be emendations, to suppress the first use of the name (i.e. *Fenestrella* Girard, [1844]) under the plenary powers for the purposes of the Law of Priority but not of the Law of Homonymy. This would invalidate all later uses of the same name and would have the result that *Drakella* Bergroth,

1922 would become the valid name of the Hemipteran genus concerned. We propose, however, that the four earlier uses of *Fenestrella* be taken to be erroneous subsequent spellings, without status in nomenclature. They can thus be placed on the Official Index without any preliminary suppression under the plenary powers, and *Fenestrella* Osborn & Drake, 1916, thus becomes the valid name for the Hemipteran genus concerned. We invite specialists in the Hemiptera to comment on this point.

16. For the reasons set forth above, we now ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers :
  (a) to suppress the generic name *Fenestella* [Röding], 1798, for the purposes of both the Law of Priority and the Law of Homonymy ;
  (b) to set aside all designations of type-species for *Fenestella* Lonsdale, 1839, made prior to the ruling now asked for, and to designate *Fenestrella* [sic] *subantiqua* d'Orbigny, 1850 (as defined by the neotype designated by Elias, 1956) as the type-species of that genus ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Fenestella* Lonsdale, 1839 (gender : feminine), type-species, by designation under the plenary powers in (1)(b) above, *Fenestrella* [sic] *subantiqua* d'Orbigny, 1850 ;
  (b) *Fenestrellina* d'Orbigny, 1849 (gender : feminine), type-species, by original designation, *Fenestella crassa* M'Coy, 1844 ;
  (c) *Fenestrella* Osborn & Drake, 1916 (gender : feminine), type-species, by original designation, *Fenestrella ovata* Osborn & Drake, 1916 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *subantiqua* d'Orbigny, 1850, as published in the binomen *Fenestrella* [sic] *subantiqua* (type-species of *Fenestella* Lonsdale, 1839) (as interpreted by the neotype designated by Elias, 1956) ;
  (b) *crassa* M'Coy, 1844, as published in the binomen *Fenestella crassa* (type-species of *Fenestrellina* d'Orbigny, 1849) ;
  (c) *ovata* Osborn & Drake, 1916, as published in the binomen *Fenestrella ovata* (type-species of *Fenestrella* Osborn & Drake, 1916) ;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
  (a) *Fenestella* [Röding], 1798, as suppressed under the plenary powers in (1)(a) above ;
  (b) *Fenestrella* Girard, [1844], an erroneous subsequent spelling of *Fenestella* Lonsdale, 1839 ;
  (c) *Fenestrella* d'Orbigny, 1849, an erroneous subsequent spelling of *Fenestella* Lonsdale, 1839 ;

- (d) *Fenestrella* d'Orbigny, 1850, an erroneous subsequent spelling of *Fenestella* Lonsdale, 1839;
- (e) *Fenestrella* Gray, 1847, an erroneous subsequent spelling of *Fenestella* [Röding], 1798;
- (f) *Drakella* Bergroth, 1922, a junior objective synonym of *Fenestrella* Osborn & Drake, 1916;

(5) to place the family-group name FENESTELLIDAE King, 1849 (type-genus *Fenestella* Lonsdale, 1839) on the Official List of Family-Group Names in Zoology.

COMMENTS ON THE PROPOSED DESIGNATION OF A TYPE-SPECIES FOR THE GENUS *SPHAEROCORYPHE* ANGELIN, 1854. Z.N.(S.) 1152

(See this volume, pages 231–233)

By J. T. Temple (*Birkbeck College, London*)

I write to support the application of C. J. Stubblefield and G. Henningsmoen [Z.N.(S.) 1152] on the proposed use of the plenary powers to designate a type-species for the genus *Sphaerocoryphe*.

I consider that the actions they propose, both in regard to the designation of *Sphaerocoryphe dentata* Angelin, 1854, as the type-species of *Sphaerocoryphe* and to the placing of the name *Sphaerometopus* on the Official Index, to be in the best interests of nomenclatorial stability and to be in harmony with past and current usage.

By J. C. Harper (*University of Liverpool*)

I have received an offprint of the paper by C. J. Stubblefield and G Henningsmoen in the *Bulletin of Zoological Nomenclature* **17** : 231–233. I give full support to the proposals therein concerning *Sphaerocoryphe*.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE NOMINAL GENUS *BLANKAARTIA* OUDEMANS, 1911 (NEMATODA). Z.N.(S.) 330

By W. E. China (*Assistant Secretary, International Commission on Zoological Nomenclature*)

Part 1. Historical Survey

The present report is based on drafts submitted by and correspondence received from Professors Henry S. Fuller and G. W. Wharton (U.S.A.), Dr. J. R. Audy (Malaya), Dr. G. Owen Evans (British Museum, Nat. Hist.), Dr. James M. Brennan (U.S.A.), and Dr. H. Womersley (South Australia). In addition full use has been made of Mr. Francis Hemming's correspondence on this case during the past twelve years. From the point of view of the Office of the Commission, this case has proved to be one of unusual difficulty because it involves taxonomic, as well as nomenclatorial, issues which have given rise to diverse opinions amongst acarologists.

2. The problem was first submitted to the Commission in December 1947, by Henry S. Fuller, Assistant Professor of Preventive Medicine and G. Wharton, Assistant Professor of Zoology, both at that time of Duke University, Durham, North Carolina, U.S.A. They pointed out that it concerned the proper application of certain generic names in the family TROMBICULIDAE Ewing, 1944, as follows :—

3. The genus *Blankaartia* was proposed by Oudemans, 1 January 1911, (*Ent. Berichten* **3** (57) : 123) for *Trombidium niloticum* Trägårdh. Although Oudemans cited the type as *Thrombidium* [*sic*] *niloticum* Trägårdh, his description was based on the larva only. The adult was not mentioned and no other species were included in the genus.

4. The genus *Blankaartia* was again treated by Oudemans in 1912 (*Zool. Jahrb.*, Suppl. **14**(1) : 118–122, text-fig. H). Here he described only the larva but on pp. 121–122 he alluded to the problem of whether the larva and adult described by Trägårdh were really one and the same species and stated that the type was in Trägårdh's collection. *Trombidium niloticum* was described by Trägårdh in 1905 (*Results Swedish Zoological Expedition to Egypt and the White Nile*, 1901, **II** : 78–82). Although he was uncertain whether the larvae found associated with the adults were actually of the same species, he proceeded to describe them as belonging to *T. niloticum*. It is now known that the larvae and adults belong to different families.

5. In 1912, Berlese (*Redia* **8** : 4) published, in his Trombidiidae Prospetto dei generi e della specie finora noti, the statement :

> " *Trombicula* Berlese, 1905 . . . typus *T. minor* Berl. Subgen. *Traghardula* n. subg. . . . typus *T. nilotica* Träg."

On page 95 of the same paper *loc. cit.*, he gave a diagnosis of the subgenus *Blankaartia* Oudemans, 1911, based on the adult of *T. niloticum*. He also figured the adult of *T. niloticum* (figs. 45 and 46) and on page 97 in his discussion of *T. niloticum* he stated that he had named the subgenus *Traghardula* in homage to Trägårdh, which clearly indicated that he had intended to establish a new subgenus based on the adult of *T. niloticum.*

Fuller and Wharton concluded their application with a request that the Commission should " suspend the rules and designate *Trombidium niloticum* Trägårdh, 1905, in part (larva only) = *Blankaartia* n. sp. as the type of the genus *Blankaartia* Oudemans, 1911, and add *Tragardhula* Berlese, 1912, with *Trombidium niloticum* Trägårdh, 1905, as the type, to the Official List of Generic Names in Zoology."

6. Owing to the absence of Mr. Francis Hemming in America this application was not dealt with until February 1949 when the Secretary advised Fuller and Wharton to publish a valid name for the larval species, and asked for additional information and reasons why serious confusion would arise if *Blankaartia* had to be used for species congeneric with *Trombidium niloticum.* Fuller and Wharton replied that according to their interpretation of Opinion 168, the names *Blankaartia* and *Tragardhula* were to be considered of uncertain status until the Commission had given an opinion concerning them. Furthermore, these uncertain names should, by the rules, not be used if unequivocal names were available. They pointed out that *Pentagonella* Thor, 1936, and *Megatrombicula* Michener, 1947, were available. In the meantime, however, Womersley of the S. Australian Museum had published a paper " The genus *Tragardhula* Berlese, 1912 (Acarina, Trombiculidae) ", *Trans. Roy. Soc. S. Australia* 72(1) : 83–90, in which he considered *Tragardhula* Berlese as a valid genus with its type *Trombidium niloticum* Trägårdh. Although recognising *Blankaartia* and referring to *Blankaartia nilotica* Oudemans, he did not designate a type. Fuller and Wharton considered that the confusion could best be remedied by publishing a new name for the larva on which *Blankaartia* had been based.

7. Hemming then drew up a rough draft of the case based on the information he had received, which he forwarded to Fuller and Wharton for comment. In this draft he took the view that this was an application concerned essentially with a case in which, as the result of a misidentification of a larval form with an adult form, the species which is universally accepted as the type-species of a given genus (*Blankaartia*) is not in fact the species which under the Rules is the type species of that genus. He wrote : " If we were concerned here with a matter of no more than nomenclatorial interest, we could put the nomenclature of these two species on a sound basis :—

(a) by applying the generic name *Blankaartia* Oudemans, 1911, to species"A" (the species represented by Trägårdh's adult form) instead of, as at present (incorrectly), to Species " B " (Trägårdh's larval form) ;

(b) by sinking the generic name *Tragardhula* Berlese, 1912, as a synonym of *Blankaartia* Oudemans, 1911 (the two genera having the same species as their respective type-species), thereby depriving Species "A" of the generic name (*Tragardhula*) by which it is always known.

(c) by establishing a genus with a new name for Species " B ", the accustomed name *Blankaartia* no longer being available for this species owing to its having been transferred to Species "A".

(d) by publishing a specific trivial name for Species " B "."

8. Hemming saw the strongest possible objection to the action indicated in (a), (b) and (c) and preferred to use the plenary powers. He finally proposed that Fuller and Wharton should ask the Commission

(1) to use their plenary powers :
    (a) to set aside all designations of type-species for the under-mentioned genera made prior to the decision of the Commission :
        (i) *Blankaartia* Oudemans, 1911 ;
        (ii) *Tragardhula* Berlese, 1912 ;
    (b) to designate *Blankaartia* sp. nov. (larval form) to be the type-species of the genus *Blankaartia* Oudemans, 1911 ;
    (c) to designate *Trombidium niloticum* Trägårdh, 1905, as identified by that author's description of the adult mite so named, to be the type-species of the genus *Tragardhula* Berlese, 1912 ;
(2) to place on the Official List of Generic Names in Zoology the generic names specified in 1(a) above, with the type-species respectively designated therefor in 1(b) and 1(c) above ;
(3) to place on the Official List of Specific Names in Zoology :
    (a) the specific name *niloticum* Trägärdh, 1905 (as published in the binominal combination *Trombidium niloticum*), as defined in 1(c) above ;
    (b) the specific name (nom. sp. nov.) Fuller and Wharton (as published in the binominal combination *Blankaartia* (nom. sp. nov.)).

9. This draft was sent to Fuller and Wharton in October 1949. They considered, however, that, as these genera were not of medical importance (did not carry scrub typhus) and as no great confusion would be caused, since these names were known only to a few workers, the plenary powers could not properly be invoked. They decided to adopt the proposals suggested by Hemming for use in normal nomenclatorial practice. In June 1951 (*Psyche* **58**(2) : 85–88) they published a paper entitled " The Generic Names *Blankaartia* Oudemans, 1911 and *Trombiculoides* Jacot, 1938. (Acari : Trombiculidae) " in which they made use of some of the views expressed by Hemming. They wrote : " It is therefore necessary either to apply the principle established in Opinion 168 that designations of type-species for genera must stand, or to refer the case to the Commission for use of their plenary powers to suspend the rules. Since the Commission can use its plenary powers only when strict application of the rules will result in greater confusion than uniformity, the type designations for the genera *Blankaartia* and *Trombiculoides* must be accepted. Oudemans, 1911, designated *Trombidium niloticum* Trägårdh, 1905, as type of a new genus *Blankaartia* (*Ent. Ber.* **3** : 123). According to the rules *Blankaartia* must retain as genotype *Trombidium niloticum* Trägårdh, 1905. Berlese, 1912, proposed the subgeneric name *Tragardhula* with the type *T. nilotica* (Träg.) (*Redia* **8** : 4). Since *Blankaartia* and *Tragardhula* are based on the same type-species they are synonyms." They stated that strict application of the rule of priority leads to the conclusion that *Blankaartia* has priority over *Tragardhula*. They therefore accepted *Blankaartia* as the

name of Trägårdh's adult and proposed a new name for the larva, *Pseudoblankaartia* (n. gen.) *bequaerti* (n. sp.).

10. The next communication, received in April 1956 by the Commission, was from Dr. J. R. Audy of the Institute for Medical Research, Kuala Lumpur, Malaya, who asked for advice on the use of *Blankaartia* and *Tragardhula.* He was committed to a check-list of the trombiculids of the Oriental and Australasian Regions and urgently wanted the opinion of the Commission. He wrote: "I have discussed this with my colleagues Col. Robert Traub and Dr. J. A. Reid. Traub suggests further support of Womersley's contention, thus: Oudemans was correct in setting up a new genus (*Blankaartia*) for the larvae which obviously did not belong to the genus *Trombidium*, or any genus then known, and which he misidentified as *Trombidium niloticum.* He erred in using the name *Trombidium niloticum* Trägårdh as the type of his genus in the mistaken assumption that this was the correct name for the larvae. But the type of a genus is a species and not a name. Therefore, we may argue that *Blankaartia* was based on a valid generic concept and the type-species is that of the larvae; viz. *Trombidium niloticum* misidentified. The name cannot be accepted; therefore *Trombidium niloticum* Trägårdh is not the type of *Blankaartia.* The larvae require a new trivial name (that of Fuller and Wharton, *bequaerti*; being available now). If this is accepted, then *Tragardhula* is unrelated to *Blankaartia* and is the correct repository for the species *niloticum.*"

11. This letter was briefly acknowledged by Hemming. Audy replied by sending to the Commission a copy of a letter which Dr. James Brennan (Rocky Mountain Laboratory, U.S.A.) had written to Womersley in Australia on 9 May 1956. Having discussed the problem with his colleagues, Kohls and Philip, he wrote: "We do not believe that the case in point is as complex as one might be led to think . . . Evidently both you and Fuller and Wharton have, in your respective interpretations, overlooked the basic principle of the first reviser, in this instance Oudemans, 1911. True, this rule was repealed by the 1948 Paris Congress, but was reinstated by the 1953 Copenhagen Congress. Doubts, opinions, provisional assignments, and intent, of authors are of no consequence whatever in reaching a decision in the matter at hand. Only the bare facts and what authors actually did can be considered. Oudemans, 1911, in establishing the genus *Blankaartia* on one component (the larva) of Trägårdh's composite species and designating *Trombidium niloticum* as the genotype, was, as the first reviser, entirely within his rights. Irrevocably now, the larvae have a valid name, *Blankaartia nilotica* (Trägårdh, 1904). The rule of the first reviser and not the misidentification clause of Article 31, obtains here. Unfortunately, the other component (the adult) was left dangling. What Oudemans, 1912, believed is not pertinent at all. Berlese, 1912, erred in selecting the Trägårdh species as genotype of *Tragardhula.* Its prior use by Oudemans, 1911, made it unavailable. This is a misidentification by Berlese, and according to Article 31, the name *Tragardhula nilotica* (Trägårdh) is invalid, i.e., the specific name cannot be retained. He should have described the adults as a new species and made this his genotype . . . Fuller and Wharton have contributed nothing in the way of a logical solution. The introduction of the names *Pseudoblankaartia* and *bequaerti* was useless.

The former is a synonym of *Blankaartia*, the latter of *nilotica*. Conclusion : *Blankaartia nilotica* (Trägårdh, 1904) is the correct name for the Trägårdh larvae which are not trombiculids. The adults, which are trombiculids, of the Trägårdh composite species are unnamed. The generic name *Tragardhula* appears to be available but a specific name is lacking." Before going any further with the history of the case it should be pointed out here that the first reviser principle does not apply in cases of this sort. Dr. Brennan's contention, therefore, cannot be accepted as a valid solution of the problem.

12. On receipt from Audy of the copy of Brennan's letter, Hemming submitted the problem to Dr. G. Owen Evans, acarologist of the British Museum (Nat. Hist.). Evans (13 June 1956) supplied a written statement of his opinion in which he found it necessary to refer only to three works. Trägårdh 1905, Oudemans 1911 and Berlese 1912. However, he brought forward Oudemans 1912 paper (*Zool. Jahrb.* Suppl. 14 : 118) in which that author gave an excellent description of his genus *Blankaartia* based entirely on Trägårdh's larva.

13. Evans concluded that *Blankaartia* must be retained for the larva of *Trombidium niloticum* since Oudemans left no doubt that it was the larval form he was dealing with when proposing the genus and that *Tragardhula* was the valid name for the adults of *T. niloticum*. He thought that the chief problem was whether *Trombidium niloticum* should refer to the larva or the adult. He was inclined to accept Trägårdh's statement : " I describe the larva as belonging to *Trombidium niloticum* " as indicating that Trägårdh considered the adult to be the form truly representing the species. He wrote, " If this is accepted then the name *Blankaartia bequaerti* (Fuller and Wharton), 1951 is available for the larva described under *Trombidium niloticum*, the type of the genus *Blankaartia*, whereas *Trombidium niloticum* Trägårdh, 1908 will be the type-species of *Tragardhula* Berlese, 1912."

14. Hemming's reply to Evans was long and detailed. He wrote : " There are two principal questions involved in this case namely (a) what is the correct interpretation of the nominal species *Trombidium niloticum* Trägårdh, 1905 and (b) in the light of the answer to question (a) above, what under the Rules is the type species, (i) of *Blankaartia* Oudemans, 1911, and (ii) of *Tragardhula* Berlese 1912. As soon as we have definite answers to the two questions set out above, but not till then, it will be possible to formulate for the consideration of the Commission the action needed to put the nomenclature of these genera and species on a firm and unassailable basis." Hemming took the view that in the case of a composite species like *T. niloticum* all the specimens are syntypes and the nominal species concerned is indeterminate until one of these syntypes is selected by a subsequent author to be the lectotype. If this had not been done already Hemming stated that it would have to be done in the application to be submitted to the Commission. It was clear, he continued, that Oudemans considered that the type species of *Blankaartia* was *Trombidium niloticum* Trägårdh as interpreted by the larva. Accordingly *Blankaartia* has as its type species a misidentified species. Under a decision taken by the Thirteenth International Congress of Zoology (1950 *Bull. zool. Nomencl.* **4** : 158–159) an author establishing a new genus is to be assumed to have correctly identified the species which he designates as the type species,

but where evidence is submitted to the Commission that this assumption would be incorrect, the Commission on being so asked, is bound to use its plenary powers to designate as the type species, the species intended by the original author. Applying this ruling to the case of *Blankaartia*, we find that under the Rules the type species of this genus is *Trombidium niloticum* Trägårdh (i.e. Trägårdh's adult form). But since this would run counter to Oudemans' original intention the Commission on being so asked would be bound to use its plenary powers to direct that *bequaerti* Fuller and Wharton (=Trägårdh's larval form) be accepted as the type species of this genus. As Berlese based his genus *Tragardhula* on the adult form of *Trombidium niloticum* then, assuming that the adult form has previously been selected as lectotype, the correct name for the adult form is *Tragardhula nilotica*. The action needed from the Commission would be, to use its plenary powers to give legal force to Oudemans' intention when he established the genus *Blankaartia* by designating Trägårdh's larval form to be type species of this genus ; to place *Blankaartia* Oudemans 1911 with *Pseudoblankaartia bequaerti* Fuller and Wharton as type species and *Tragardhula* Berlese 1912 with *Trombidium niloticum* Trägårdh 1904 as type species, on the Official List of Generic Names in Zoology. At the same time it would be necessary to place the specific names *niloticum* Trägårdh 1904 and *bequaerti* Fuller and Wharton 1951 on the Official List of Specific Names in Zoology."

15. A copy of Hemming's letter to Evans was sent to Professor Wharton together with a covering letter recommending him to cooperate with Professor Fuller in making out a new application in which the selection of a lectotype of *Trombidium niloticum* would be an essential preliminary. A copy of this letter was also sent to Dr. Audy. In July 1956 Professor Wharton replied to Hemming's letter pointing out that in view of the wide circulation of Fuller and Wharton's " Manual of the Chiggers " (*Proc. Ent. Soc. Washington* No. 4, 1952) they wished to validate the decision adopted in that work and to conserve the name *Blankaartia* as applied to the adult mite which Trägårdh named as *Trombidium niloticum*. *Tragardhula* Berlese would thus sink as a synonym of *Blankaartia*, but Fuller and Wharton wanted the senior name *Blankaartia* suppressed by the Commission in favour of its junior synonym *Tragardhula* Berlese. In the meantime Brennan had written to the Commission enclosing a copy of his letter to Womersley of May 9th 1956. Hemming replied to Wharton and to Brennan in August 1956 stating that in view of the sharp difference of opinion among specialists on this matter he thought that the best thing to do was to place before the Commission simultaneously the two alternative proposals (Brennan's and Fuller and Wharton's).

16. The next letter to the Commission was from Dr. Audy (October 1956) who had received a copy of Wharton's July letter to the Commission. He was in the throes of publishing *Malaysian Parasites* XVI–XXXI and was anxious to maintain consistency in the names used. Audy considered that technically right or wrong, *Blankaartia* was the better name to use. He pointed out that Fuller and Wharton's paper in *Psyche*, 1951, had gone unchallenged for 6 years and that during that time *Blankaartia* had been used in (a) a first-class checklist, (b) a wide taxonomic revision and (c) a local revision.

During this interval *Tragardhula* had only been used twice. In other words Audy was in favour of using *Blankaartia* in place of *Tragardhula* for Trägårdh's adult and he made a plea for the rejection of *Tragardhula* in favour of *Blankaartia*.

17. In November 1956 the Commission received a long and detailed application from Dr. H. Womersley of the South Australian Museum, requesting the use of the plenary powers to validate the use of the binomen *Blankaartia nilotica* (Oudemans), 1911, for the larval component of the composite species *Trombidium niloticum* Trägårdh and also to validate the generic name *Tragardhula* Berlese, 1912, for the adult of *Trombidium niloticum* Trägårdh. Womersley made a point of the fact that of Trägårdh's original material only the adults would be syntypes whereas in the case of *Blankaartia* all syntypes would be larvae. He proposed that the larva described and figured by Oudemans in 1912 should be taken as the lectotype of *Blankaartia nilotica* Oudemans (non Trägårdh). He drew attention to a paper by Sig Thor and Willman 1947 (*Das Tierreich*, Lfg. **71b** : 353) in which the authors used *Tragardhula nilotica* for the adults and (p. 499) *Blankaartia nilotica* for the larvae. Womersley proposed to select the single female of *Trombidium niloticum* upon which Berlese based his re-description and figures of *Tragardhula nilotica* Trägårdh as the lectotype of *Trombidium niloticum* Träg. [Presumably this female was part of the syntype material originally examined by Trägårdh and the lectotype would therefore be that of *Trombidium niloticum* Trägårdh although this is not clear from Womersley's statement]. Womersley refused to accept Fuller and Wharton's statement that *Blankaartia* could only refer to the adult of *T. niloticum* saying that it was both fallacious and illogical. He endeavoured to trace the deposition of Trägårdh's original material. There was no Oudemans material of *Blankaartia* in the Rijksmuseum van Natuurlijke Historie, Leiden. Dr. O. Lundblad was unable to find any adults in Trägårdh's Collection in the Naturhistoriska Riksmuseet in Stockholm. Even the larvae were in bad condition. He, Lundblad, said that Trägårdh did not label types. Amongst the slides sent to Womersley by Lundblad was only a single slide of *T. niloticum* comprising 3 larvae labelled in Trägårdh's writing " Tròmbidium niloticum Träg. Larve. W. Nil. 20,3.01. Trägårdh," and at the other end of the slide labelled in Oudemans writing "*Blankaartia niloticum* Träg. Larva." There seemed, therefore, no doubt that this slide was the material studied by Oudemans, and that the three specimens were syntypes. In the absence of a holotype designation Womersley selected one of these three larvae as lectotype of *Trombidium niloticum* Oudemans 1911 non Trägårdh 1905 and indicated it by a ring of ink.

18. Womersley sent a copy of his application to a number of specialists including Professor Wharton and a copy of Wharton's reply to Womersley dated November 21, 1956, was sent to the Commission. Wharton, still concerned with the nomenclature used in his " Manual of the Chiggers," wrote : " In requesting that the International Commission use its plenary powers to validate the use of the names as you have used them in the past, you are requesting that the Commission validate your disregard of the rules of the International Commission so that your former invalid practice will be validated.

If the Commission grants this request they will be in a position of penalizing individuals who have followed the rules. This seems to me to be an unreasonable request of the Commission and I personally would lose my faith in the Commission if they were to grant your request." Professor Wharton stated that he and Professor Fuller were preparing another statement for submission to the Commission. This has not yet been received.

19. In October 1957 the Commission received a letter from Dr. R. V. Southcott of Hyde Park, South Australia. He wrote : " I have come to the conclusion that the larval element of Trägårdh's compound species should be called *Blankaartia bequaerti* (Fuller and Wharton, 1951) and that the adult element should be called *Tragardhula nilotica* (Trägårdh, 1905). In general I think Womersley's interpretation is correct, except for the specific name of the larval element. Apart from Berlese's (1912) incorrect use of *Blankaartia*, the names *Tragardhula* and *Blankaartia* were used each in a uniform sense until the action of Fuller and Wharton (1951). However, in founding *Blankaartia*, Oudemans (1911, amplified 1912) did not describe *nilotica* n. sp., but allotted the specific name *nilotica* to Trägåardh. In naming the larva *nilotica*, Trägårdh did so provisionally only, as he states : ' It is the writer's opinion therefore that in the name *Blankaartia nilotica* (Träg.) as proposed by Oudemans, the specific name was applied in error and is therefore invalid under Article 31. The writer is of the opinion that a solution as above will contribute most to the stability of the nomenclature '."

20. On the 26 September 1958, Hemming summed up the position as follows : "As will be seen, this file contains a considerable number of documents which will need to be published simultaneously. In view of the complexity of this case (and the different views held by different workers on particular aspects of it), I had intended to publish simultaneously with the above papers a Report by myself as Secretary in which I should have tried to summarise in an objective fashion both the views expressed in the other papers and the issues on which decisions by the Commission are needed. I felt that this was necessary because this case has so many facets and there was so much difference of opinion among the specialists concerned that there was, I thought (and still think) a serious danger that otherwise the case might get bogged down through the inability of the members of the Commission to appreciate the issue at stake."

Part 2. The Present Position

21. In writing up the present case it has been thought better to summarize the documents involved rather than to publish them in full. This has been done in the preceding survey. The differences of opinion among specialists which is such a feature of this case may best be set out in tabular form as follows :—

Trombidium niloticum Trägårdh, 1905

Specialist	Adult (Species A)	Larva (Species B)
Trägårdh, 1905	*Trombidium niloticum*	*Trombidium niloticum*
Oudemans, 1911		*Blankaartia nilotica* (Trägårdh, 1905) (*T. niloticum* Tr. cited as type of genus)
Oudemans, 1912		*Blankaartia nilotica* (Trägårdh) (full description and figures)
Berlese, 1912	p. 4 *Tragardhula nilotica* (Träg.) (type cited as *T. niloticum* Träg.) p. 95. *Blankaartia nilotica* (Träg.) (type cited as *T.*(*B.*) *nilotica* Träg.)	
Fuller & Wharton, 1951	*Trombicula* (*Blankaartia*) *niloticum* (Träg.)	*Pseudoblankaartia bequaerti* F. & W.
Fuller & Wharton, 1952	*Blankaartia nilotica* (Träg.)	*Pseudoblankaartia bequaerti* F. & W.
Brennan (*in litt.*), 1956	*Tragardhula* sp. inedit	*Blankaartia nilotica* (Träg.)
Evans, 1956 (*in litt.*)	*Tragardhula nilotica* (Träg.)	*Blankaartia bequaerti* (F. & W.)
Audy, 1956 (*in litt.*)	*Blankaartica nilotica* (Träg.)	*Pseudoblankaartia bequaerti* F. & W.
Womersley, 1956 (*in litt.*)	*Tragardhula nilotica* (Träg.)	*Blankaartia nilotica* Oudemans not Trägårdh
Southcott, 1957 (*in litt.*)	*Tragardhula nilotica* (Träg.)	*Blankaartia bequaerti* (F. & W.)

From this table there appear to be only two clear-cut alternatives, since Brennan's proposal is based on an erroneous usage of the first-reviser principle which cannot be applied in this case, and Womersley's *Blankaartia nilotica* Oudemans (not Trägårdh) is the same as *Blankaartia bequaerti* (F. & W.). They are as follows :—

(a) The adult is *Blankaartia nilotica* (Trägårdh) while the larva is *Pseudoblankaartia bequaerti* Fuller and Wharton.

This alternative is supported by Fuller & Wharton and by Audy.

(b) The adult is *Tragardhula nilotica* Trägårdh while the larva is *Blankaartia bequaerti* (Fuller & Wharton).

This alternative is supported by Evans, Southcott and Womersley.

22. Let us now consider the problem purely in the light of the Rules. Since, according to Lundblad, Trägårdh did not label type-specimens, his nominal species *Trombidium niloticum* is only defined subjectively. A lectotype may, therefore, be selected from any of the included specimens (syntypes). In his application to the Commission Womersley proposes to select as lectotype of *Trombidium niloticum* Trägårdh the single adult female upon which Berlese based his redescription and figure of the species (*Redia* **8** : 96–98, 1912). Berlese wrote (translation) : " I have not seen the male and therefore am unable to associate it with the female of which I have a specimen sent to me by Trägårdh ". Womersley also proposes to select as lectotype of *Trombidium niloticum* Oudemans, 1911 not Trägårdh, 1905 (i.e. *Blankaartia bequaerti* (F. & W.)), the larva described and figured by Oudemans in 1912 (*Zool. Jahrb.*, Supp. 14 : 118–122) and based on a slide from Trägårdh's collection borrowed by Oudemans and now preserved in the Naturhistoriska Riskmuseet, Stockholm. This slide bears three larvae labelled " *Trombidium niloticum* Träg. Larve " in Trägårdh's writing and " *Blankaartia niloticum* Träg. Larva " in Oudemans' writing. The Rules on the selection of lectotypes state quite definitely that " no specimen is to be treated as being a syntype which was referred to by the original author as a variant or as a variety or *was only doubtfully referred to the species* . . . ". Now Trägårdh wrote (translation) : " On the majority of the mites [*adults*!] living as parasites was a *Trombidium* larva and since as previously stated, the water plants [on which these mites were found] were quite isolated, one is led to believe that they represent the larva of *T. niloticum*, although no actual proof can be found, since unhappily no nymphochrysalis was present. In the following I describe the larva as belonging to *Trombidium niloticum* ". There is surely an expression of doubt here. On this point Oudemans (*Acaralog. Aanteekeningen* 46 Ent. Berecht. **3** : (70), 1913) wrote (translation) : " So there is not a single proof, not a single reason even to presume that the larva would belong to the adult (although the possibility remains open) ". Owing to this element of doubt expressed by Trägårdh, a larval specimen could never, by the strict application of the rules, be regarded as a lectotype of *Trombidium niloticum* Trägårdh. This nominal species must, therefore, remain associated with the adult specimens described by Trägårdh, but according to Prof. O. Lundblad no adult specimen of this species can now be found in Trägårdh's collection. It has been shown by the specialists that when Oudemans based his new genus *Blankaartia* on the larval form of *Trobidium niloticum* Trägårdh, he was basing it on a species entirely different from *Trombidium niloticum* Trägårdh which was the nominal type-species of *Blankaartia*. This species, based on the larva, has since been named *bequaerti* by Fuller & Wharton.

23. This then is a clear-cut case of a genus (*Blankaartia*) based on a misidentified species. Since any lectotype of *Trombidium niloticum* Trägårdh must be an adult, a genus based on the larva must have for its type-species the species to which the larvae belong, namely, *Pseudoblankaartia bequaerti* F. & W. As previously stated (Hemming) "An author establishing a new genus is to be assumed to have correctly identified the species which he designates as the type-species, but where evidence is submitted to the Commission that this

assumption is incorrect, the Commission on being asked is bound to use its plenary powers to designate as the type-species, the species intended by the original author . . . We find that under the Rules the type-species of *Blankaartia* is *Trombidium niloticum* Trägårdh (adult), but since this would run counter to Oudemans' original intention the Commission, in view of the evidence submitted, is bound to use its plenary powers to direct that *bequaerti* Fuller & Wharton (= Trägårdh's larval form) be accepted as the type-species of this genus ".

24. Alternative 21(a) above, adopted by Fuller and Wharton and Audy is apparently the correct one under a strict application of the Rules, but it is invalidated by the fact that it involves the selection, as a lectotype, of a specimen which was doubtfully included by Trägårdh in his original material of *Trombidium niloticum.* If this Alternative is accepted by the Commissioners then it would be necessary, in view of the present confusion, for the International Commission on Zoological Nomenclature to take the following actions :

(1) to declare that the valid type-species of *Blankaartia* Oudemans, 1911 was in fact *Trombidium niloticum* Trägårdh (as designated by Oudemans) in spite of the fact that Oudemans based his genus on a larva which has been shown to represent quite another species ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :

(a) *Blankaartia* Oudemans, 1911 (gender : feminine), type-species by monotypy, *Trombidium niloticum* Trägårdh, 1905 ;

(b) *Pseudoblankaartia* Fuller & Wharton, 1951 (gender : feminine), type-species by monotypy, *Pseudoblankaartia bequaerti* Wharton and Fuller, 1951 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :

(a) *niloticum* Trägårdh, 1905, as published in the binomen *Trombidium niloticum* (type-species by monotypy of *Blankaartia* Oudemans, 1911) ;

(b) *bequaerti* Fuller & Wharton, 1951, as published in the binomen *Pseudoblankaartia bequaerti* (type-species of *Pseudoblankaartia* Fuller & Wharton, 1951) ;

(4) to place the following generic name on the Official Index of Rejected and Invalid Generic Names in Zoology :

Tragardhula Berlese, 1912 (a junior objective synonym of *Blankaartia* Oudemans, 1911).

25. Alternative 21(b) above, adopted by Womersley, Evans and Southcott, if accepted by the Commissioners, would require the International Commission on Zoological Nomenclature to take the following actions :

(1) use its plenary powers to set aside all designations of a type-species for the nominal genus *Blankaartia* Oudemans, 1911, made prior to the ruling now asked for and, having done so, to designate *Pseudoblankaartia bequaerti* Fuller & Wharton, 1951 as the type-species of that genus ;

(2) to place the following generic names on the Official List of Generic Names in Zoology:
  (a) *Blankaartia* Oudemans, 1911 (gender: feminine), type-species by designation under the plenary powers in (1)(a) above, *Pseudoblankaartia bequaerti* Fuller & Wharton, 1951;
  (b) *Tragardhula* Berlese, 1912 (gender: feminine) type-species by monotypy *Trombidium niloticum* Trägårdh, 1905;

(3) to place the following specific names on the Official List of Specific Names in Zoology:
  (a) *niloticum* Trägårdh, 1905, as published in the binomen *Trombidium niloticum* (type-species by monotypy of *Tragardhula* Berlese, 1904);
  (b) *bequaerti* Fuller & Wharton, 1951, as published in the binomen *Pseudoblankaartia bequaerti* (type-species by designation under the plenary powers in (1)(a) above of *Blankaartia* Oudemans, 1911).

(4) to place the following generic name on the Official Index of Rejected and Invalid Names in Zoology:
  Pseudoblankaartia Fuller & Wharton, 1951, a junior objective synonym of *Blankaartia* Oudemans, 1911.

So far as is known there are no family group names based on the above genera.

COMMENT ON THE PROPOSED USE OF THE PLENARY POWERS TO STABILIZE THE GENERIC NAME *ORTHOCEROS* BRUGUIERE, 1789. Z.N.(S.) 44

(See this volume, pages 2–24)

By V. N. Shimansky (*Palaeontological Institute, Academy of Sciences, Moscow*)

I think it extremely desirable to stabilise the name *Orthoceras*. It is quite impossible to compel geologists to write *Orthoceros*, Orthocerotids, or Orthoceros-Limestone. Some editors even correct *Orthoceros* into *Orthoceras*, taking it for a *lapsus calami*, and do not always notify the author about the change. The name *Orthoceras* has taken too deep root in the geological literature to be eradicated.

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE GENERIC NAME *MACRONEMA* STEPHENS, 1829, SO AS TO PRESERVE THE GENERIC NAME *MACRONEMA* PICTET, 1836 (CLASS INSECTA, ORDER TRICHOPTERA). Z.N.(S.) 706

By D. E. Kimmins (*British Museum* (*Natural History*), *London*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to validate the well-known generic name *Macronema* Pictet, 1836 (Class Insecta, Order Trichoptera) by suppressing the long overlooked but earlier name *Macronema* (Megerle MS.) Stephens, 1829. The relevant facts in this case are set out in the following paragraphs.

2. The name *Macronema* was first published as a generic name in the Coleopterous family GALERUCIDAE by Stephens (who adopted it from the manuscript usage of Megerle) in 1829 (*Syst. Cat. brit. Ins.* : 217). In 1831, Stephens emended the name to *Macrocnema* (*Ill. brit. Ent.*, Mand. **4** : 317) and the original spelling *Macronema* appears to have been overlooked by Coleopterists. That *Macrocnema* is an emendation and not a new name is clear from the following facts : (a) on both occasions Stephens attributed the name to Megerle ; (b) of the sixteen species placed by him in *Macrocnema*, thirteen were included in the earlier *Macronema* ; (c) the diagnosis " tarsi postici elongati " indicated that it is part of the leg (*-cnema*) not the antenna (*-nema*) that is large, which is correct.

3. The genus *Macrocnema* Stephens, 1831, has been synonymized under *Psylliodes* Berthold, 1927 (*in* Latreille, *Nat. Fam. Thierr.* : 401), type-species, by designation by Maulik, 1926 (*Fauna brit. Ind.*, Coleoptera, Chrysomelidae : 124) *Chrysomela chrysocephala* Linnaeus, 1758, and is therefore not used by Coleopterists. The type-species of *Macrocnema* Stephens, 1831 was fixed by Curtis, 1834 (*Brit. Ent.* **11** : text to pl. 486) and later by Westwood, 1838 (*Introd. mod. Class. Ins.*, Gen. Synops. : 42) as *Chrysomela hyoscyami* Linnaeus, 1758.

4. In 1836, Pictet (*Mém. Soc. Phys. Hist. nat. Genève* **7** : 399) proposed the name *Macronema* for a new genus of Trichoptera which now contains some 130 nominal species. In 1839 it was amended by Burmeister (*Handb. Ent.* **2** : 915), on etymological grounds, to *Macronemum* but this emendation was not used by Trichopterists, to any extent, until 1944 when Ross (*Illinois State nat. Hist. Survey, Bull.* **23**(1) : 114) adopted it as the first available name to replace *Macronema* Pictet, 1836, preoccupied by *Macronema* Stephens, 1829. This novel use of Burmeister's unjustified emendation has not come into general use. The type-species of *Macronema* Pictet is, by monotypy, *Macronema lineatum* Pictet, 1836.

5. It has been suggested by Ulmer (*in litt.*) that since *Macronema* Stephens, 1829, was a typographical error and should have been written *Macrocnema*, *Macronema* Pictet is not a homonym and that consequently there is no need to use Burmeister's emendation *Macronemum* to replace it.

6. There is, however, no definite evidence of a typographical error on the part of Stephens. The position under the Rules is therefore that *Macronema* Stephens, 1829, is a valid original spelling and *Macrocnema* Stephens, 1831, is an invalid emendation, and therefore a junior objective synonym, of *Macronema*. Similarly *Macronema* Pictet is a valid original spelling, although a junior homonym. *Macronemum* Burmeister is an invalid emendation, and a junior objective synonym, of *Macronema* Pictet, and is therefore available as a replacement for that name.

7. The genus *Macronema* Pictet has been used as the basis for the family-group name MACRONEMATINAE Ulmer, 1905 (*Stettin. ent. Ztg.* **66** : 46). This name is now placed as a synonym of the earlier family-group OESTROPSINAE Brauer, 1868 (*Verh. zool. bot. Ges. Wien* **18** : 264). Brauer spelt this name OESTROPSIDAE, although he called it a subfamily within the PHRỲGANEIDAE. MACRONEMATINAE is only a subjective synonym of OESTROPSIDAE and therefore should not be placed on the Official Index.

8. In order to dispose of conflicting views and at the same time conserve in its accustomed sense *Macronema* Pictet, 1836, I invite the International Commission on Zoological Nomenclature to take the following action :—

(1) to use its plenary powers to suppress the generic name *Macronema* Stephens, 1829, for the purposes of both the Law of Priority and the Law of Homonymy ;

(2) to place the generic name *Macronema* Pictet, 1836 (gender : neuter), type-species, by monotypy, *Macronema lineatum* Pictet, 1836, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *lineatum* Pictet, 1836, as published in the binomen *Macronema lineatum* (type-species of *Macronema* Pictet, 1836), on the Official List of Specific Names in Zoology ;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :

    (a) *Macronema* Stephens, 1829 (suppressed under the plenary powers in (1) above) ;

    (b) *Macronemum* Burmeister, 1839 (an invalid emendation of *Macronema* Pictet, 1836).

PROPOSED USE OF THE PLENARY POWERS TO VALIDATE *CROCODILUS PALUSTRIS* LESSON, 1831 (REPTILIA). Z.N.(S.) 760

By Robert Mertens (*Forschungs Institut und Natur-Museum, Senckenberg, Frankfurt a. Main, Germany*)

The object of the present application is to preserve the specific name *palustris* Lesson, 1831, as published in the binomen *Crocodilus palustris*, by suppression of a senior subjective synonym, published in the same year.

2. Lesson, 1831, *in* Férusac, *Bull. Sci. nat.* **25** : 121 described the South-Asiatic Marsh Crocodile giving it the name *Crocodilus palustris*. In the synonymy is listed " *C. vulgaris, var.* Gray, Sn. Rept. 58 ". The part of the serial concerned is marked as having been published in April 1831. The species has since been universally known by the name *palustris*.

3. Also in 1831 Gray (J.E.), *Synopsis Rept.* : 58 published the subspecific name *indicus* in the combination *Crocodilus vulgaris indicus* for the same taxon (i.e. a subspecies of *Crocodilus vulgaris* Cuvier, 1807). Gray gave the very short but adequate indication " Maxillis convexis ". The name *indicus* has not since been used even by Gray himself who, in 1844, *Cat. tor. Brit. Mus.* : 62, used the specific name *palustris* Lesson for the species.

4. The only available information on the date of publication of Gray's *Synopsis Reptilium* is that included in Lesson, 1831—that is the mention of this work in the list of synonymy of *Crocodilus palustris*. Under the Rules therefore Gray's work must be regarded as having been published before Lesson's.

5. In order to preserve the specific name *Crocodilus palustris* the International Commission is therefore asked :

(1) to use its plenary powers to suppress the specific name *indicus* Gray, 1831, as published in the combination *Crocodilus vulgaris indicus*, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place the specific name *palustris*, Lesson, 1831, as published in the binomen *Crocodilus palustris* on the Official List of Specific Names in Zoology ;

(3) to place the specific name *indicus* Gray, 1831, as published in the combination *Crocodilus vulgaris indicus* (suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Specific Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR THE NOMINAL GENUS *STROPHALOSIA* KING, 1844, (PHYLUM BRACHIOPODA). Z.N.(S.) 784.

By Helen M. Muir-Wood (*British Museum* (*Natural History*), *London*)

It is the object of this application to ask the International Commission on Zoological Nomenclature to use its plenary powers to designate a type-species for the genus *Strophalosia*. The particulars of the case are as follows.

2. The generic name *Strophalosia* was first proposed by W. King in 1844 (: 313) in a paper in advance of his Monograph on Magnesian Limestone Fossils (1850), for a " Productus-like shell with an area, and possessing a condyloid hinge as the Terebratulas, and not a simple one as in the true Productuses . . . ". No species were named and no specimens were figured by King. Two years later King (1846, July : 28) was the first author to refer species to the genus, when he listed *spinifera* nov., *morrisiana* nov., *subaculeata* Murchison, *horrescens* de Verneuil, *productoides* Murchison, ? *spinulosa* J. Sowerby, *gerardi* nov., etc.". The first two species were not described until 1848. *S. gerardi*, a Himalayan fossil " from between Ladakh and Bisahar " but of which the precise locality, and the horizon within the Permian are unknown, is the only species still referred to *Strophalosia* which had been first described in 1846—but at a later date (August : 93). *P. horrescens*, *P. subaculeatus* (type-species of *Productella*) and *P. productoides* are not congeneric with the species which are at present assigned to *Strophalosia* but these are the only species which, under the Rules, are eligible for selection as type-species of the genus. No specimens were figured by King in 1846.

3. Because King had withdrawn his " Catalogue of the Organic Remains of the Permian Rocks " from publication by the Tyneside Naturalist Field Club, the latter body commissioned R. Howse to prepare a similar catalogue for them. Howse's " Catalogue " was published on the 17th August 1848 and included descriptions of King's MS. species *spiniferus* and *morrisianus*, from the Magnesian Limestone near Sunderland, but assigned to the genus *Productus*. Two days later King (19th August 1848) published his " Catalogue " with descriptions of these species but assigned to his genus *Strophalosia*. Howse's use of these specific names was the reverse of that of King, so that *Productus spiniferus* Howse = *Strophalosia morrisiania* King, and *Productus morrisianus* Howse = *Strophalosia spinifera* King. Later authors have overlooked the fact that Howse's names have priority over King's.

4. King (1850 : 93) in his " Monograph of the Permian Fossils " fully described *Strophalosia* and figured his species for the first time. He selected *Orthis excavata* Geinitz, 1842, as the type-species of *Strophalosia*. This was said to be the same as *Strophalosia spinifera* King. King suggested (*ibid.* : 99) that *S. excavata* (Geinitz) might be identical with *Strophalosia goldfussi* (Münster, 1839). In this publication and in 1846 (: 28) King consistently spelt his specific name *morrisiania* as *morrisiana* (: 97, 99). The spelling *morrisiania*

has never been used and it seems likely that this was a printer's error in 1848. The Commission is therefore asked to validate the emendation to *morrisiana* of the specific name *morrisiania*, under the plenary powers.

5. *Orthis excavata* described by Geinitz in 1842 (: 578, pl. 10. figs. 12, 13) from the Permian Zechstein of Altenburg, Pösneck, Germany, was not, however, one of King's listed species in 1846, and in spite of the fact that it has been accepted as type-species by many subsequent authors, such as Davidson 1853, Dall 1877, Schuchert & Levene 1929, Dunbar & Condra 1932, Prendergast 1943, Dunbar 1955, is not eligible for selection as type.

6. The interpretation of Geinitz' species *Orthis excavata* is by no means clear of confusion. Some authors, including Maxwell (1954 : 539), considered it to be identical with *Spondylus goldfussi* (Münster, 1839 : 2, pl. 4, figs. 3a, b) from the Zechstein of Ropsen, Gera, Germany, and have therefore selected *Strophalosia goldfussi* as type-species of *Strophalosia*. This was probably King's fault in interpreting these species incorrectly in his 1850 monograph, since the specimens figured by him as *Strophalosia goldfussi* do not correspond with Münster's species but are to be identified as *Strophalosia excavata* (Geinitz). On the other hand King's *Strophalosia excavata* represents a species described earlier by de Koninck (1847 : 262, pl. 15, figs. 5a–e) as *Productus lewisianus*.

7. King again discussed the species of *Strophalosia* in 1856 (: 341) and listed them as *S. excavata* (Geinitz), *S. goldfussi* (Münster), *S. cancrini* (de Verneuil), *S. horrescens* (de Verneuil), *S. morrisiana*, var. (?) *humbletonensis* King, var. (?) *whitleyensis* King, *S. parva* King, and *S.* (?) *lamellosa* (Geinitz). Howse (1857 : 47) also discussed the species of *Strophalosia*, and stated definitely that *S. goldfussi* (Münster) is the typical form and is the same as *S. excavata* (Geinitz). Davidson (1857 : 19, pl. 2) described and figured the British species of *Strophalosia* but did little to disentangle these species.

8. Still earlier, confusion had been caused by Murchison and de Verneuil (1845 : 223) who listed *Productus morrisianus* and *P. spiniferus* as synonyms of *Strophalosia morrisiana* King MS. and *S. spinifera* King MS.—the species had not at that time been described. This use of the specific names *morrisiana* and *spinifera* preceded their first publication by King by one year. De Verneuil in the second volume of the same publication (1845 : 281), in speaking of *Productus horrescens*, stated " Il y a dans le *magnesian limestone* de Humbleton un petit *Productus* hérissé de tubes longs et serrés, très voisin de notre espèce et qui sera bientot décrit par M. King, directeur du Muséum de Newcastle, sous le nom de *Leptaenalosia morrisiana* ". The species *morrisiana* had not been described at that time (1845) and the genus *Leptaenalosia* has here a very inadequate description. The generic name *Leptaenalosia* was quoted by King (1850 : 93) as a synonym of *Strophalosia*, and in a footnote he stated " The name *Leptaenalosia* a mere provisional MS. name noticed in the 1st volume of the Geology of Russia, was shortly abandoned for the one now adopted ". It has, in fact, never been used as a valid name since its first publication and is a *nomen dubium*.

9. Meanwhile, Geinitz (1847 : 84) described and figured (1848 : 14, pl. 5) the genus *Orthothrix* with three species *Orthis excavata* Geinitz, *O. lamellosa*

Geinitz and *O. goldfussi* Münster. No type-species was selected for the genus until 1877 when Dall (: 53) selected *Orthis excavata*, thus making *Orthothrix* seemingly a synonym of *Strophalosia*. King (1850) included this genus in the synonymy of *Strophalosia*.

10. Examination of the type-specimens of the species *S. excavata* and *S. goldfussi*, both of which have been selected as type-species of *Strophalosia*, would greatly assist in the straightening out of this question, but so far as can be ascertained these are lost. We are, therefore, obliged to rely on the relevant literature and any specimens available in the Museum collections.

11. Careful study of the species *S. goldfussi* (Münster, 1839) and *S. excavata* (Geinitz, 1842) shows them to be distinct in ornament and to have certain differences in external form. *S. goldfussi* often has a large cicatrix of attachment truncating the umbo of the pedicle valve, and the interarea of the pedicle valve is lower than in *S. excavata*. The surface of both valves has numerous long vermiform spines recurving towards the umbo or medianly, and often intertwined. In addition there are rare fine straight spines usually near the umbo of the pedicle valve and more conspicuous in young shells. The vermiform spines are described and figured by Münster (pl. 4, figs. 3a, b). Similar spines are developed on the pedicle valve of *S. lamellosa* (Geinitz).

12. *Strophalosia excavata* (Geinitz) has a minute cicatrix of attachment. The interarea of the pedicle valve is rather elevated and twice the height of that of the brachial valve. The shells are normally pentagonal in outline, tapering posteriorly. Both valves are covered with very numerous fine spine bases. The spines, when preserved are hair-like and nearly straight, and extend anteriorly or laterally. Confusion between *S. goldfussi* and *S. excavata* would only occur if no spines were preserved, but the spine-bases of the vermiform spines are of larger diameter than the spines of *S. excavata*. Geinitz himself (1861 : 93, pl. 17, figs. 5–12), however, confused his own species with *S. lewisiana* (de Koninck), specimens of which are figured as *S. excavata*.

13. *S. excavata* (Geinitz) is not to be confused with King's species *S. morrisiana* (=*spinifera* Howse), which is finely capillate on both valves, with elongate spine ridges and clasping spines in rows on the ears in the pedicle valve only. This is clearly different from the ornament of *S. excavata*. *Strophalosia spinifera* King, 1848 and 1850 (= *S. morrisiana* (Howse, 1848)) was said by King (1850 : 98) to be the same as *S. excavata* (Geinitz, 1842), and *S. lewisiana* (de Koninck, 1847). King (1848 : 9) described *S. spinifera* as having very long curved spines with radiating arrangement and a small very slightly elevated interarea in the pedicle valve and no interarea in the brachial valve. This is distinct from *S. excavata* (Geinitz) but is identical with *Productus lewisianus* de Koninck, 1847, from the Permian Magnesian Limestone of Humbleton, Durham. *S. spinifera* is, therefore, a junior subjective synonym of *S. lewisiana* (de Koninck). *S. lewisiana* (de Koninck) has priority over *S. spinifera* King and *S. morrisiana* (Howse), but it is not identical with *S. excavata* (Geinitz).

14. The interpretation of the genus *Strophalosia* will depend on the selection of the type-species, and the following species have to be considered :—

(a) *Strophalosia gerardi* King, 1846 (: 93), a Permian species of the

Himalayas, figured by King (1850 : 96, pl. 19, figs. 6, 7). The holotype is preserved in the University of Galway and a plaster cast is in the British Museum (Natural History) col..BB.10007. It has two series of spines in the brachial valve, and an interarea in each valve. Related forms occur in the Permian of India and Australia. Although not available for selection as type of *Strophalosia* because it was a *nomen nudum* when originally included under the generic name in 1846, the species was described by King only a month later. I therefore request that *Strophalosia gerardi* be designated type-species of *Strophalosia* under the plenary powers.

(b) *Strophalosia excavata* (Geinitz, 1842) has one series of fine, almost straight, hair-like spines in each valve. This species was not included in King's 1846 list of species, and was confused by King (1850) with *S. goldfussi* (Münster). It was selected as type-species of *Strophalosia* by King (1850) and by other subsequent authors. It is the type-species of *Orthothrix* Geinitz, 1847, by subsequent designation by Dall (1877).

(c) *Strophalosia spinifera* King, 1848 = *morrisiana* (Howse, 1848) = *S. lewisiana* (de Koninck, 1847). This was one of King's originally listed species but was not described until 1848. *S. lewisiana* (de Koninck) and *S. spinifera* King have not been designated as type-species of *Strophalosia* by any author.

(d) *Productus subaculeatus* Murchison (1840 : 255) and *P. productoides* de Verneuil are not congeneric with species now assigned to *Strophalosia*. *P. subaculeatus* is the type-species, by designation by Oehlert, 1887 (: 1279), of the genus *Productella* Hall, 1867 (: 153, 250).

(e) *Productus horrescens* de Verneuil is generally assigned to the genus *Aulosteges* von Helmersen, 1847 sens. lat. and is not a strophalosiid.

(f) *Strophalosia morrisiana* King was not described until 1848 and = *spinifera* (Howse). This species has not previously been designated type-species of *Strophalosia*.

(g) *Productus spinulosus* J. Sowerby, 1814 (: 155) was only doubtfully referred to *Strophalosia*, and is the type-species, by original designation, of *Krotovia* Fredericks, 1928 (: 779, 790).

(h) *Strophalosia goldfussi* (Münster) was confused by King with *S. excavata* (Geinitz), and the specimens figured by him (1850) as Münster's species represent *S. excavata*, while his *S. excavata* should be identified as *S. lewisiana*. *S. goldfussi* has been quoted by several authors as the type-species of *Strophalosia*, but it was not one of King's originally listed species.

15. Maxwell (1954 : 539) discussed the question of the type-species of *Strophalosia* and rejected the selection of *S. gerardi* and proposed *S. goldfussi* (Münster), which he erroneously stated to be synonymous with *S. excavata* (Geinitz). He rejected the name *Orthothrix* and proposed the suppression of the specific name *excavata* (Geinitz).

16. The genus *Productella* Hall, 1867, is currently considered to be the type-genus of the family PRODUCTELLIDAE, first published in the form PRODUCTELLINAE as the name for a sub-family by Schuchert & LeVene, 1929 (: 17). This is the only genus discussed in the present application which is the type of a family-group taxon.

17. The proposal which is now submitted is that the International Commission on Zoological Nomenclature should :—

(1) use its plenary powers :—
    (a) to suppress the following names for the purposes of the Law of Priority but not for those of the Law of Homonymy :—
        (i) the generic name *Leptaenalosia* de Verneuil, 1845 ;
        (ii) the specific name *spiniferus* Howse, 1848, as published in the binomen *Productus spiniferus* ;
        (iii) the specific name *morrisianus* Howse, 1848, as published in the binomen *Productus morrisianus* ;
    (b) to set aside all previous designation of type-species for the genus *Strophalosia* King, 1844 and, having done so, to designate *Strophalosia gerardi* King, 1846 to be the type-species of that genus ;
    (c) to validate the emendation to *morrisiana* of the specific name *morrisiania* King, 1848, as published in the binomen *Strophalosia morrisiania* ;

(2) place the following generic names on the Official List of Generic Names in Zoology :—
    (a) *Strophalosia* King, 1844 (gender : feminine), type-species, by designation under the plenary powers in (1)(b) above, *Strophalosia gerardi* King, 1846 ;
    (b) *Productella* Hall, 1867 (gender : feminine), type-species, by subsequent designation by Oehlert, 1887, *Productus subaculeatus* Murchison, 1840 ;
    (c) *Krotovia* Fredericks, 1928 (gender : feminine), type-species by original designation, *Productus spinulosus* J. Sowerby, 1814 ;
    (d) *Orthothrix*, Geinitz, 1847 (gender : feminine), type-species by subsequent designation by Dall, 1877, *Orthis excavata* Geinitz, 1842 ;

(3) place the generic name *Leptaenalosia* de Verneuil, 1845, as suppressed under the plenary powers in (1)(a)(i) above, on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(4) place the following specific names on the Official List of Specific Names in Zoology :—
    (a) *gerardi* King, 1846, as published in the binomen *Strophalosia gerardi* (type-species of *Strophalosia* King, 1844) ;
    (b) *subaculeatus* Murchison, 1840, as published in the binomen *Productus subaculeatus* (type-species of *Productella* Hall, 1867) ;
    (c) *spinulosus* J. Sowerby, 1814, as published in the binomen *Productus spinulosus* (type-species of *Krotovia* Fredericks, 1928) ;
    (d) *excavata* Geinitz, 1842, as published in the binomen *Orthis excavata* (type-species of *Orthothrix* Geinitz, 1847) ;
    (e) *morrisiana* (emend. of *morrisiania*) King, 1848, as published in the binomen *Strophalosia morrisiana* ;
    (f) *lewisianus* de Koninck, 1847, as published in the binomen *Productus lewisianus* ;

   - (g) *goldfussi* Münster, 1839, as published in the binomen *Spondylus goldfussi* ;

(5) place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :—

   - (a) *spiniferus* Murchison & de Verneuil, 1845, as published in the binomen *Productus spiniferus* (a *nomen nudum*) ;
   - (b) *morrisianus* Murchison & de Verneuil, 1845, as published in the binomen *Productus morrisianus* (a *nomen nudum*) ;
   - (c) *spiniferus* Howse, 1848, as published in the binomen *Productus spiniferus* (as suppressed under the plenary powers in (1)(a)(ii) above) ;
   - (d) *morrisianus* Howse, 1848, as published in the binomen *Productus morrisianus* (as suppressed under the plenary powers in (1)(a)(iii) above) ;
   - (e) *morrisiania* King, 1848, as published in the binomen *Strophalosia morrisiania* (Ruled under the plenary powers in (1)(c) above to be an invalid original spelling for *morrisiana*) ;

(6) place the family-group name PRODUCTELLIDAE Schuchert & LeVene, 1929 (type-genus : *Productella* Hall, 1867) on the Official List of Family-Group Names in Zoology.

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COMMENTS ON THE PROPOSALS RELATING TO THE GENERIC NAMES *ISCHNOPODA* STEPHENS, 1835 (Z.N.(S.) 244) AND *BOLITOCHARA* MANNERHEIM, 1831. (Z.N.(S.) 243)

(See this volume, pages 69–75)

By A. A. Allen (*London, England*)

I very strongly support the proposals put forward by the Rev. C. E. Tottenham. In my opinion it is highly desirable that the three Staphylinid genera in question, *Bolitochara* Mannerheim, 1831, *Ischnopoda* Stephens, 1835, and *Tachyusa* Erichson, 1837, should be stabilized according to current usage, as Mr. Tottenham advocates.

By H. Last (*Banstead, Surrey*)

I strongly support the designation of type-species for *Ischnopoda* and *Tachyusa* as recommended by Mr. C. E. Tottenham.

I strongly support the proposals relating to the genus *Bolitochara* and fully agree with the reasons given, especially would I like to stress the retention of the genus *Zyras* Stephens. It is of world-wide distribution and much work is now in progress on the genus and there have been recent publications under this name. It has furthermore, Myrmecophilous and Termitophilcus associations, and is therefore cited in literature not confined entirely to Coleoptera. The name change would therefore lead to confusion over a much wider field of research.

By C. H. Seevers (*Chicago Natural History Museum, Illinois, U.S.A.*)

I am in complete agreement with the recommendations of Mr. C. E. Tottenham, and strongly support his reasons for the necessity of adopting them. Adoption of the recommendations will prevent the transfer of the name *Bolitochara* to the genus *Zyras* Stephens, a change that would result in nothing but confusion.

Tottenham's comments on the desirability of avoiding changes in the nomenclature of the large genus *Atheta* are especially appropriate.

PROPOSED USE OF THE PLENARY POWERS TO REVISE OPINION 107 SO AS TO STABILIZE THE SPECIFIC NAME *MINUTUS* J. BUCKMAN, 1845 (*ECHINUS*) (CLASS ECHINOIDEA). Z.N.(S.)1288

By R. V. Melville (*Assistant Secretary, International Commission on Zoological Nomenclature*)

The binomen *Echinus minutus* has had a somewhat chequered nomenclatorial history, and it is the purpose of this report to stabilize the specific name in the only sense in which it has ever entered into general usage. The historical facts of the case are set out below.

2. Opinion 107 (1929, *Smiths. Misc. Coll.* **73**(6) : 9–14) decided that "*pusillus* 1776 should not be suppressed by *minutus* 1774". The question, which had been put to the Commission by the late Dr. Mortensen, was whether the species long and universally known as *Echinocyamus pusillus* (O. F. Müller, 1776) should be termed *Echinocyamus minutus* (Pallas, 1774), and the case depended upon whether "*Echinus minutus* Pallas, 1774" was a zoological name or not. Mortensen, supported by Bather, held that Pallas had never in fact published such a name, but that he had merely used the words "Echinos minutos" in the Latin accusative plural as part of a sentence (in a work entirely written in Latin) describing two figures of "minute echini". The full discussion can be read in the original Opinion and in the facsimile reprint of Opinions 1–133 (1958, *Ops. Decls. Int. Comm. zool. Nomencl.* **1B**).

3. Pallas's text (1774, *Spic. Zool.* (10) : 34) may certainly be read either way in the light of existing Rules, as previous contestants in the case have admitted, although it seems certain to me that he had no intention of creating a name in his phrase "*Echinos minutos adjeci de quibus hic verbulo*" (I have thrown in some small echini and here is a little word about them), although his description and figures would suffice to validate a name, had he proposed one. Gmelin, however, (1790, *in* Linnaeus, *Syst. Nat.* ed. 13, **1** : 3194) listed *Echinus minutus* beyond any doubt as a specific name, with a reference to Pallas. Opinion 107, however, while validating *pusillus* O. F. Müller, 1776 (*Spatagus*), did not clarify the status of the alleged "*Echinus minutus*" Pallas, 1774, or of the undoubted *Echinus minutus* Gmelin, 1790, and it is now proposed to rectify that omission.

4. It is clear that the Commission deliberately refrained from giving a clear ruling on the status of Pallas's alleged name in the "Summary" of Opinion 107, and that the stabilization of *Spatagus pusillus* O. F. Müller, 1776, was based partly on a sort of principle of conservation, and partly on "the somewhat uncertain status of *minutus*". Had the Commission decided to accept Pallas's alleged name as an available name, then it would have had to use the plenary powers to stabilize Müller's name. In view of the strong opinion of Mortensen, supported by Bather, that Pallas's name had no existence, an opinion which, both as a student of echinoids and as a member of the Commission's staff I strongly support, it is strange that the definite step of declaring Pallas's name to be unavailable was not then taken, and I now suggest that the Commission

should rule once and for all that the alleged name *Echinus minutus* Pallas, 1774, is a cheironym.

5. It may be noted at this point that when the Commission at a later stage, and as the result of a separate application from Dr. Mortensen, considered *Spatagus pusillus* O. F. Müller, 1776, (1950, *Bull. zool. Nomencl.* **4** : 337 ; 1954, Opinion 207, *Ops. Decls. Int. Comm. zool. Nomencl.* **3** : 339–352), no consideration was given to *Echinus minutus*.

6. I turn now to the consideration of *Echinus minutus* Gmelin, 1790 (see para. 3 above). This name is certainly an available name, but since it is, as pointed out by Mortensen, and agreed by all workers on echinoids, a junior subjective synonym of *Spatagus pusillus* O. F. Müller, 1776, further discussion might seem to be fruitless. It is important, nevertheless, to appreciate that the name is invalid, because that fact removes any objection to the suppression of Gmelin's name so as to validate a junior homonym.

7. The junior homonym in question is the name of a fossil echinoid which has recently been found to occur more commonly than was supposed in the Lower Lias of England, and to have some value as a stratigraphical and palaeoecological index. This species was first named *Cidaris minuta* by J. Buckman (1845, *in* Muchison's *Geology of Cheltenham*, 2nd ed. : 81) in a list of fossils, without any accompanying data except geological horizon and locality. *Cidaris minuta* J. Buckman, 1845, is therefore a *nomen nudum*. On p. 95 of the same work, however, the same species is named *Echinus minutus* with a back reference "*Cidaris*—see list, p. 81 " and is fully described and figured. No earlier available name is known for this species, which has been known by the specific name *minutus* ever since its first establishment. It is so cited by Oppel, 1856, *Die Juraformation* : 110 ; T. Wright, 1856, *Brit. Ool. Ech.* (Palaeont. Soc.) **1** : 230 ; J. Lambert, 1900, *Bull. Soc. Sci. Nat. Yonne* **1899** : 34 ; Lambert & Thiéry, 1910, *Essai Nomenc. Rais. Ech.* : 177 ; and Mortensen, 1940, *Monogr. Ech.* **3**(1) : 176. The most important reference, from the nomenclatorial angle, is Bather, 1909, *Res. wiss. Erforsch. Balatonsees* **1**(1) Palaeont. Anhang : 101, where specimen No. E.8808 in the British Museum (Natural History) London was selected as lectotype.

8. The genus *Eodiadema* Duncan, 1889, to which this species has been referred for more than fifty years, was described twice by Duncan in the same year. The first occasion was in a paper by E. Wilson and W. D. Crick (Aug. 1889, *Geol. Mag.* (3) **6** : 339), in which the palaeontological part is stated to be by Wilson. The generic description of *Eodiadema* is, however, expressly attributed to Duncan, and is nearly word for word the same as that author's second description in *J. linn. Soc., Zool.*, **23** : 81, published on 31 December 1889. When first described (Aug. 1889), only one species was referred to the genus, namely *Eodiadema granulatum* Wilson, *op. cit.* : 339, which is therefore the type-species by monotypy. It is proposed that this generic name, and the name of its type-species, be placed on the appropriate Official Lists, not only because the opportunity is convenient, but because Lambert, *op. cit.*, 1900, having failed to obtain any material of the type-species (which is extremely rare), designated *Echinus minutus* J. Buckman 1845, as type-species. Although this invalid designation was corrected by Lambert &

Thiéry in 1910 (*op. cit.*), it would be as well to forestall the risk of its being followed, by workers to whom the latter work is not available, by the action now proposed.

9. I therefore propose that the International Commission on Zoological Nomenclature should, in revising the ruling given in Opinion 107 :

(1) use its plenary powers to suppress the specific name *minutus* Gmelin, 1790, as published in the binomen *Echinus minutus*, for the purposes of both the Law of Priority and the Law of Homonymy ;

(2) place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :
  (a) *minutus* Gmelin, 1790, as published in the binomen *Echinus minutus*, as suppressed under the plenary powers in (1) above ;
  (b) *minutus* Pallas, 1774, as alleged to have been published in the binomen *Echinus minutus*, a cheironym ;
  (c) *minuta* J. Buckman, 1845, as published in the binomen *Cidaris minuta*, a *nomen nudum* ;

(3) place the generic name *Eodiadema* Duncan, 1889 (gender : neuter), type-species, *Eodiadema granulatum* Wilson, 1889, on the Official List of Generic Names in Zoology ;

(4) place the following specific names on the Official List of Specific Names in Zoology :
  (a) *minutus* J. Buckman, 1845, as published in the binomen *Echinus minutus*, validated by the action taken under the plenary powers in (1) above ;
  (b) *granulatum* Wilson, 1889, as published in the binomen *Eodiadema granulatum* (type-species of *Eodiadema* Duncan, 1889).

MALLOPHAGAN NAMES OF DE GEER, 1778 ; PROPOSED ADDITION TO OFFICIAL LISTS. Z.N.(S.) 1400

By G. H. E. Hopkins and Theresa Clay
British Museum (Natural History), Tring and London

Since we find ourselves compelled to ask for recognition of a neotype for almost every nominal species of Mallophaga mentioned in the course of this and other appeals we are making to the International Commission on Zoological Nomenclature, we think it desirable to explain the special circumstances which make this unavoidable. With almost no exceptions, the types of all nominal species of Mallophaga described before the end of the eighteenth century are lost, if they were ever preserved ; many of the names published by Linnaeus in 1758, for instance, were based on drawings published by Redi in 1668, while none of the species described by De Geer in 1778 is represented by specimens in his collection at Stockholm. Further the almost total destruction during the second world war of the Halle Collection, containing the types of very many species described by Nitzsch and his successors, has extended this loss to cover the types of the vast majority of all species described prior to 1880 with the exception of those contained in the relatively small Denny Collection in the British Museum. In a high proportion of instances the nominal species covered by these pre-1880 descriptions are composite, and in no instance is it possible to recognize beyond doubt what species is meant in the absence of a type. It is, therefore, essential to designate neotypes if the names are to be applied with precision. All the neotypes mentioned in this application are in the British Museum (Natural History).

2. De Geer (1778, *Mém. Hist. Ins.* **7** : 69–81, pl. 4, figs. 5–16) published a description of one genus and descriptions and figures of seven species of Mallophaga. The generic name (*Ricinus*) has been in use by students of Mallophaga since 1906 and in almost universal use since 1916 ; of the specific names, two are regarded as junior synonyms but the remaining five are all in current use and two of them refer to species of veterinary importance. The question has now been raised, however, whether De Geer's *Mém. Hist. Ins.* is an available work, since it has been claimed (see, e.g., Hottes, 1954, *Bull. zool. Nomencl.* **9** : 166–173) that this book is not binominal. We do not wish to discuss this claim here, but we feel that the names given by De Geer to Mallophaga must be dealt with apart from the question of the availability of his work because of a special difficulty about the section of volume 7 in which all the Mallophagan names are contained. In all other portions of the volume the names and descriptions are in such form as (: 50) " *Termes* (destructor) *albidum, capite luteo, antennis filiformis, alterius maxillis longitudine antennarum* ", where the second word, differentiated by being printed in Roman type and enclosed in brackets, is obviously the specific name. In the section containing the Mallophaga (: 69–81) the second word is not enclosed in brackets nor printed in Roman type, but in each of the seven instances it is in a form which suggests that De Geer intended it for a specific name ; each is based on one or both of the components of the binominal name of the host species, and

is not a descriptive term in the ablative case. Students of the Mallophaga, who have never hitherto doubted the availability of *Mém. Hist. Ins.* have long assumed that the second word in De Geer's description of each species is the specific name and that the failure to differentiate it is of the nature of a misprint probably due to the fact that volume 7 was published after De Geer's death. The names are discussed individually below, but for the sake of clarity we have restored the brackets and differentiating type which we believe to have been omitted accidentally.

3. The type-species of *Ricinus* De Geer, 1778 (: 69), is, by subsequent designation (Neumann, 1906, *Bull. Soc. zool. Fr.* **20** : 56) *Ricinus fringillae* De Geer, 1778. Hermann (1804, *Mémoire aptérologique*, Strasbourg, : 12) proposed the generic name *Nirmus* as a *nomen novum* for *Ricinus*, explicitly because of the employment of the latter name in botany ; he did not mention any species, but as the name was a *nomen novum* for *Ricinus* the included species are those mentioned by De Geer, and Neumann's selection of *Ricinus fringillae* De Geer as type-species of *Ricinus* would automatically make it the type-species of *Nirmus* Hermann even if Neumann had not explicitly stated this (1906 : 56).

4. Nitzsch (1818, *Mag. Ent.* (Germar) **3**) described (: 296) the genus *Liotheum* to cover " *Pediculus*, Linn., Fabric.—*Ricinus*, Degeer, Latreille,—*Nirmus* Hermann, de Olfers " (in each instance clearly only *in parte*) and erected (: 302) the subgenus *Physostomum* for three nominal species of which one is a junior objective synonym of *Ricinus fringillae* De Geer ; this nominal species (*Liotheum* (*Physostomum*) *nitidissimum* Nitzsch, 1818) is the type-species of *Physostomum* by subsequent designation (Harrison, 1916, *Parasitology* **9** : 24). The name *Physostomum* was used for the genus for many years, but Neumann restored *Ricinus* in 1906 (*Bull. Soc. zool. Fr.* **20** : 56) and it is now in universal use ; it is employed in the only two comprehensive lists of the Mallophaga which have been published in the last half-century (Harrison, 1916, *Parasitology* **9** : 1–156 and Hopkins & Clay, 1952, *Check List of the Genera and Species of Mallophaga*). It is also employed in an important partial revision of the genus (Balat, 1952, K poznaniu druhov rodu *Ricinus* De Geer, 1778 (Mallophaga), *Biologicky Sbornik* **7** : 155–170).

5. Nitzsch also (1818, *Mag. Ent.* (Germar) **3** : 291) used the name *Nirmus* for another of his subgenera (belonging to the other suborder of Mallophaga), but though he doubtless intended this to be a restriction of *Nirmus* Hermann he did not include in it any of the species included by De Geer (and therefore, since it is a *nomen novum*, by Hermann) and *Nirmus* Nitzsch, 1818 (type-species, by subsequent designation, by Johnston & Harrison, 1911, *Proc. Linn. Soc. N.S.W.* **36** : 326 " *Degeeriella discocephalus* N.") is a junior homonym of *Nirmus* Hermann, 1804. Neumann (1906, *Bull. Soc. zool. Fr.* **20** : 60) renamed it *Degeeriella*.

6. The syntypes of *Degeeriella discocephalus* (Burmeister, 1838) were in the Halle Collection. Clay (1958, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **7** : 168, figs. 35, 51, 119, pl. 9, fig. 1) redescribed the species and designated a neotype which is labelled " NEOTYPE *Nirmus discocephalus* Burmeister, slide no. 617, Samorin, Czechoslovakia, 9.xii.1952 ".

7. The generic name *Liotheum* Nitzsch, 1818 is not dealt with in this application because it is more relevant to the application with regard to the name *Menopon* Nitzsch, 1818 which we are submitting simultaneously.

8. *Ricinus* (Fringillae) *pallide-fuscus, corpore oblongo margine nigro, capite magno: corniculis duobus obtusis flexilibus* (De Geer, 1778, *Mém. Hist. Ins.* **7** : 71, pl. 4, figs. 5–8) was renamed *Liotheum nitidissimum* by Nitzsch in 1818 (*Mag. Ent.* (Germar) **3** : 302) ; as this latter name is a *nomen novum,* having no " indication " other than the reference to De Geer, the neotype designated for *Ricinus fringillae* De Geer by Clay & Hopkins (1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 237, figs. 15–17, pl. 10, fig. 6) is also the neotype of *Liotheum nitidissimum* Nitzsch. It is labelled *Ricinus fringillae* De Geer, Neotype, 563, *Emberiza citrinella* yellow-hammer, Oberfrohna, Saxony, Germany, 13.v.26.

9. *Ricinus* (Emberizae) *pallide-fuscus, abdomine albescente : maculis lateralibus fuscis capite magno triangulari* (De Geer, 1778, *Mem. Hist. Ins.* **7** : 74, pl. 4, fig. 9) is from the same species of host (*Emberiza citrinella*) as *Philopterus c. citrinellae* (Schrank, 1776) (*Beyträge zur Naturgeschichte*, Leipzig : 116, pl. 5, fig. 7, as a *Pediculus*) and we consider it to be a subjective synonym of the latter. A neotype of Schrank's species was designated, described and figured by Clay & Hopkins (1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 229, figs. 8, 9, pl. 10, fig. 4) and is labelled " *Philopterus c. citrinellae* (Schrank), *Emberiza citrinella* Saxony, slide no. 565."

10. *Ricinus* (Cornicis), *albidus, fasciis dorsalibus transversis fuscis, antennis brevissimis ad apicem capitis* is unquestionably a *Myrsidea* and, in the form *Ricinus cornicis* De Geer, 1778 (: 76, pl. 4 fig. 11) is (if De Geer's *Mém. Hist. Ins.* is an available work) the valid name for the species to which it refers. Harrison (1916, *Parasitology* **9** : 13) did not make use of the name, wrongly considering it to be a junior primary homonym of *Pediculus cornicis* Fabricius, 1775, but Hopkins & Clay (1952, *Check List of the Genera and Species of Mallophaga* : 228) brought *Myrsidea cornicis* (De Geer, 1778) into use to replace *M. subaequalis* (Haan, 1829) and *M. mesoleuca* (Nitzsch, 1818), the former a subjective and the latter an objective synonym of *M. cornicis* (De Geer). A change of name was inevitable in this instance because the fact that *M. mesoleuca* (Nitzsch, 1818) is not a *nomen nudum* but a *nomen novum* for *R. cornicis* De Geer had been overlooked and the name *M. mesoleuca* had been thought to date from 1838 and to be junior to *M. subaequalis.* The neotype designated by Clay & Hopkins (1954, *Bull. Brit. Mus.* (*nat. Hist*), *Ent.* **3** : 238, fig. 18) for *Myrsidea cornicis* (De Geer, 1778) is necessarily also the neotype of *Myrsidea mesoleuca* (Nitzsch, 1818). It is labelled "NEOTYPE, *Myrsidea cornicis* (De Geer), *Corvus corone cornix* Linn., Sweden, slide no. 16012a."

11. *Ricinus* (Lari), *griseo-albidus, oculis maculisque capitis nigris, pedibus crassioribus* (De Geer, 1778, *Mém. Hist. Ins.* **7** : 77, pl. 4, fig. 12) is undoubtedly a nymph of some member of the genus *Trinoton* Nitzsch, 1818, but is stated by De Geer to have been obtained " sur les Mouettes " (Larus spp.) on which members of this genus do not occur in nature. It is not determinable to any species without the aid of a neotype, and Clay and Hopkins (1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 239) sought to place it safely in synonymy by designating for it a neotype which agrees with their neotype of the senior

name *Trinoton querquedulae* (Linn., 1758) (*Syst. Nat.* (ed. 10) **1** :1758). The original type-material of the latter nominal species is also lost, but a neotype was designated by Clay & Hopkins (1950, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **1** : 244, figs. 27, 28) ; it is labelled " NEOTYPE, *Trinoton querquedulae* (Linn.), *Anas c. crecca* Linn., Suffolk, England, Sept. 1935, slide no. 4007. Meinertzhagen label." The genus *Trinoton* Nitzsch, 1818 (*Mag. Ent.*, Germar **3** : 300) is dealt with in an application submitted simultaneously with this.

12. *Ricinus* (Mergi serrati) *albidus, capite flavescente, corpore elongato* (De Geer, 1778, *Mém. Hist. Ins.* **7** : 78, pl. 4, fig. 13) was renamed *Pediculus mergi* by J. C. Fabricius in 1781 (*Spec. Ins.* **2** : 480) and *Philopterus* (*Lipeurus*) *temporalis* by Nitzsch in 1818 (*Mag. Ent.* (Germar) **3** : 292) ; both these names are *nomina nova* for *Ricinus mergiserrati* De Geer. Harrison (1916, *Parasitology* **9** : 138) brought De Geer's name for the species back into use and this name was used by Hopkins & Clay in their *Check List of the Genera and Species of Mallophaga* (1952 : 33). The neotype designated by Clay & Hopkins (1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 241, figs. 24, 25, pl. 11, fig. 2) for *Anaticola mergiserrati* (De Geer, 1778) is necessarily also the neotype for *Peiiculus merri* Fabricius and *Philopterus temporalis* Nitzsch. This neotype is labelled " Neotype, *Anaticola mergiserrati* (De Geer), *Mergus serrator* Linn., North Uist, Scotland, xi.1949, slide no. 19298a." Meinertzhagen label.

13. The genus *Philopterus* is dealt with in another application submitted simultaneously with this and *Pediculus* does not belong to the Mallophaga. The genus to which *Ricinus mergiserrati* De Geer is now referred is *Anaticola* Clay, 1936, of which the type-species, by original designation, is *Pediculus crassicornis* Scopoli, 1763 (*Ent. Carniolica* : 383).

14. Scopoli's collections were destroyed in about the year 1776 (see Horn & Kahle, 1936, *Ent. Beihefte* **3** : 252), but a neotype for *Anaticola crassicornis* (Scopoli, 1763) has been designated and described by Clay & Hopkins (1951, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **2** : 19, figs. 23–24).

15. *Ricinus* (Gallinae) *albidus, abdomine ovato, capite semi-orbiculato: posticis setis quatuor longioribus* (De Geer, 1778, *Mém. Hist. Ins.* **7** : 79, pl. 4, fig. 15) was brought into use (as " *G. gallinae* Deg. (syn. *G. hologaster* N.) ") by Johnston & Harrison (1911, *Proc. Linn. Soc. N.S.W.* **36** : 326) and they simultaneously selected it as type-species of *Goniocotes* Burmeister, 1838, for which no type-species had previously been selected. Harrison (1916, *Parasitology* **9** : 14) rejected *Goniocotes gallinae* (De Geer), thinking it to be a primary homonym of *Pediculus gallinae* Linnaeus, 1758, and called the species *Goniocotes hologaster* (Nitzsch) ; the latter name (for which Harrison gave an incorrect date and reference) is a *nomen novum* for *R. gallinae* De Geer. Hopkins & Clay (1952, *Check List of Genera and Species of Mallophaga* : 147) restored De Geer's name and Clay & Hopkins (1954, *Bull. Brit. Mus.* (*nat. Hist*), *Ent.* **3** : 242, figs. 29, 30) designated a neotype for the species, which is labelled " Neotype, *Goniocotes gallinae* (De Geer), no. 567, J. Waterston coll., *Gallus domesticus* Collafirth, N. Mavine, Shetland, Scotland, J. Waterston ". The species is of veterinary importance and it would be most unfortunate if it were to undergo any more nomenclatorial vicissitudes.

16. *Ricinus* (Canis), *capite angulato flavescente fusco punctato, abdomine ovato albido marginibus serrato, thorace brevissimo* (*Mém. Hist. Ins.* **7** : 81, pl. 4, fig. 16). This species was renamed *Trichodectes latus* (a *nomen novum*) by Nitzsch in 1818 (*Mag. Ent.* (Germar) **3** : 296) and was selected as type-species of *Trichodectes* by Johnston & Harrison (1911, *Proc. Linn. Soc. N.S.W.* **36** : 326). Clay & Hopkins (1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 244) designated a neotype for this nominal species and the specimen is labelled " NEOTYPE, *Trichodectes canis* (De Geer) no. 581, *Canis familiaris*, São Paulo, Brazil, F.L.W.305 " ; this specimen is also automatically the neotype of *Trichodectes latus* Nitzsch, 1818. Clay & Hopkins (*l.c.* : 245) also designated a similar specimen as a neotype for *Pediculus canis* O. Fabricius, 1780 (*Fauna Groenlandiae* : 215), with a view to establishing this name firmly as a synonym, as well as a secondary homonym, of *Trichodectes canis* (De Geer), but in view of the policy (not at that time formulated) that neotypes should not be made for disused nominal species, recognition of the neotype of *Trichodectes canis* (O. Fabricius) is not sought. The species, which is of veterinary importance, is now universally known as *Trichodectes canis* (De Geer).

17. Turning to the family-group aspect, the earliest family-group name based on one of the genera dealt with in this appeal is NIRMIDES [Leach, 1815] (type-genus : *Nirmus* Hermann, 1804), but this has been unanimously rejected by students of the Mallophaga in favour of its junior objective synonym RICINIDAE Neumann, 1890 ; LIOTHEIDAE Burmeister, 1838, is discussed in an application which we are making simultaneously with this and in which we ask for its suppression. GONIOCOTINI Eichler, 1937, and DEGEERIELLINI Eichler, 1937, are considered by many specialists on the Mallophaga to be inseparable as family-group taxa from PHILOPTERIDAE Burmeister, 1838 (dealt with in an application which we are submitting simultaneously). TRICHODECTIDAE Kellogg, 1896, is universally accepted.

18. We therefore ask the International Commission on Zoological Nomenclature to take the following action :—

(1) to rule that, without prejudging the question whether De Geer's *Mém. Hist. Ins.* is or is not an available work, the generic name *Ricinus* and the specific names *fringillae*, *cornicis*, *mergiserrati*, *gallinae* and *canis*, all published by him in volume 7 of that work, are to be regarded as available names, in the sense of the Rules of Availability, as from their publication by De Geer in 1778.

(2) to use the plenary powers to suppress the family-group name NIRMIDES (Leach, 1815], *in* Brewster, *Edinburgh Encyclopaedia* (ed. 1) **9** : 78 (type-genus *Nirmus* Hermann, 1804) (a senior objective synonym, long disused, of RICINIDAE Neumann, 1890) for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(3) to place on the Official List of Generic Names in Zoology the following generic names :

  (a) *Ricinus* De Geer, 1778, *Mém. Hist. Ins.* **7** : 69 (gender : masculine) (type-species, by selection by Neumann, 1906 (*Bull. Soc. zool. Fr.* **20** : 56) : *Ricinus fringillae* De Geer, 1778, *Mém. Hist. Ins.* **7** : 71) ;

(b) *Degeeriella* Neumann, 1906, *Bull. Soc. zool. Fr.* **20** : 60 (gender : feminine) (type-species by selection by Johnston & Harrison, 1911 (*Proc. Linn. Soc. N.S.W.* **36** : 326) : *Nirmus discocephalus* Burmeister, 1838, *Handb. Ent.* **2**(2) : 430) ;

(c) *Anaticola* Clay, 1936, *Proc. zool. Soc. Lond.* **1936** : 617 (gender : masculine) (type-species by original designation : *Pediculus crassicornis* Scopoli, 1763, *Entomologia Carniolica* : 383) ;

(d) *Myrsidea* Waterston, 1915, *Ent. mon. Mag.* **51** : 12 (gender : feminine) (type-species by original designation : *Myrsidea victrix* Waterston, 1915, *Ent. mon. Mag.* **51** : 13) ;

(e) *Goniocotes* Burmeister, 1838, *Handb. Ent.* **2**(2) : 431 (gender : masculine) (type-species by subsequent selection (Johnston & Harrison, 1911, *Proc. Linn. Soc. N.S.W.* **36** : 326) : *Ricinus gallinae* De Geer, 1778, *Mém. Hist. Ins.* **7** : 79) ;

(f) *Trichodectes* Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 294 (gender : masculine (type-species by subsequent selection (Johnston & Harrison, 1911, *Proc. Linn. Soc. N.S.W.* **36** : 326) : *Ricinus canis* De Geer, 1778) ;

(4) to place on the Official List of Specific Names in Zoology the following names :

(a) *fringillae* De Geer, 1778, *Mém. Hist. Ins.* **7** : 71, as published in the combination *Ricinus fringillae* and as defined by the neotype designated by Clay & Hopkins, 1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 237 (specific name of type-species of *Ricinus* De Geer, 1778 ;

(b) *cornicis* De Geer, 1778, *Mém. Hist. Ins.* **7** : 76, as published in the combination *Ricinus cornicis* and as defined by the neotype designated by Clay & Hopkins, 1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 239 ;

(c) *mergiserrati* De Geer, 1778, *Mém. Hist. Ins.* **7** : 78, as published in the combination *Ricinus mergiserrati* and as defined by the neotype designated by Clay & Hopkins, 1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 241 ;

(d) *gallinae* De Geer, 1778, *Mém. Hist. Ins.* **7** : 79, as published in the combination *Ricinus gallinae* and as defined by the neotype designated by Clay & Hopkins, 1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 242 (specific name of type-species of *Goniocotes* Burmeister, 1838) ;

(e) *canis* De Geer, 1778, *Mém. Hist. Ins.* **7** : 81, as published in the combination *Ricinus canis* and as defined by the neotype designated by Clay & Hopkins, 1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 244 (specific name of type-species of *Trichodectes* Nitzsch, 1818) ;

(f) *discocephalus* Burmeister, 1838, *Handb. Ent.* **2**(2) : 430, as published in the combination *Nirmus discocephalus* and as defined by the neotype designated by Clay, 1958, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **7** : 168 (specific name of type-species of *Degeeriella* Neumann, 1906) ;

- (g) *crassicornis* Scopoli, 1763, *Entomologia carniolica* : 383, as published in the combination *Pediculus crassicornis* and as defined by the neotype designated by Clay & Hopkins, 1951, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **2** : 19 (specific name of type-species of *Anaticola* Clay, 1936) ;
- (h) *citrinellae* Schrank, 1776, *Beyträge zur Naturgeschichte*, Leipzig : 116, pl. 5, fig. 7, as published in the combination *Pediculus citrinellae* and as defined by the neotype designated by Clay & Hopkins, 1954, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **3** : 229 ;
- (i) *querquedulae* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 612, as published in the combination *Pediculus querquedulae*, and as defined by the neotype designated by Clay & Hopkins, 1950, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **1** : 244 ;

(5) to place the following names on the Official List of Family-Group Names in Zoology :

- (a) RICINIDAE Neumann, 1890, *Bull. Soc. Hist. nat. Toulouse* **24** : 55 (type-genus : *Ricinus* De Geer, 1778) ;
- (b) TRICHODECTIDAE Kellogg, 1896, *Proc. Calif. Acad. Sci.* (2) **6** : 63 (type-genus : *Trichodectes* Nitzsch, 1818) ;
- (c) GONIOCOTINI Eichler, 1937, *S.B. Ges. naturf. Fr. Berl.* **1937** : 108 (type-genus : *Goniocotes* Burmeister, 1838) (for use by those zoologists who consider that *Goniocotes* Burmeister, 1838 and *Philopterus* Nitzsch, 1818 belong to different taxa of the family-group) ;
- (d) DEGEERIELLINI Eichler, 1937, in Niethammer, *Handb. dtsch. Vogelkunde* **1** : 360 (type-genus : *Degeeriella* Neumann, 1906) (for use by those zoologists who consider that *Degeeriella* Neumann, 1906 and *Philopterus* Nitzsch, 1818, belong to different taxa of the family-group) ;

(6) to place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology :

- (a) *Nirmus* Hermann, 1804, *Mémoire aptérologique* : 12 (a junior objective synonym of *Ricinus* De Geer, 1778) ;
- (b) *Nirmus* Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 291 (a junior homonym of *Nirmus* Hermann, 1804) ;
- (c) *Physostomum* Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 302 (a junior objective synonym of *Ricinus* De Geer, 1778) ;

(7) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :

- (a) *nitidissimum*, *Liotheum*, Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 302 (a junior objective synonym of *fringillae*, *Ricinus*, De Geer, 1778) ;
- (b) *mesoleucum*, *Liotheum*, Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 300 (a junior objective synonym of *cornicis*, *Ricinus*, De Geer, 1778) ;
- (c) *mergi*, *Pediculus*, J. C. Fabricius, 1781, *Spec. Ins.* **2** : 480 (a junior objective synonym of *mergiserrati*, *Ricinus*, De Geer, 1778) ;

(d) *temporalis*, *Philopterus*, Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 292 (a junior objective synonym of *mergiserrati*, *Ricinus*, De Geer, 1778) ;

(e) *hologaster*, *Philopterus*, Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 294 (a junior objective synonym of *gallinae*, *Ricinus*, De Geer, 1778) ;

(f) *latus*, *Trichodectes*, Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 296 (a junior objective synonym of *canis*, *Ricinus*, De Geer, 1778) ;

(8) to place the following name on the Official Index of Rejected and Invalid Family-Group Names in Zoology :

NIRMIDES [Leach, 1815], in Brewster, *Edinburgh Encyclopaedia* (ed. 1) **9** : 78 (suppressed under the plenary powers in (2) above).

MENOPON NITZSCH, 1818 (INSECTA, MALLOPHAGA) AND RELATED NAMES ; APPLICATION FOR ADDITION TO OFFICIAL LISTS.
Z.N.(S.) 1399

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An application which we are making to the International Commission on Zoological Nomenclature simultaneously with this one entails a proposal that the family-name TRINOTONIDAE Eichler, 1941 (*Arch. Naturgesch.* (N.F.) **10** : 382) should be placed on the Official List of Family-Group Names in Zoology, but it is undesirable that this should be done without consideration of the much senior names MENOPONIDAE Mjöberg, 1910 (*Ark. Zool.* **6**(13) : 26) and LIOTHEIDAE Burmeister, 1838 (*Handb. Ent.* **2**(2) : 436), particularly because many authors consider that these three names all refer to the same family.

2. The type-genus of MENOPONIDAE is *Menopon* Nitzsch, 1818 (*Mag. Ent.* (Germar) **3** : 299, as a subgenus of *Liotheum* Nitzsch, 1818, *l.c.* : 296), and the type-species of *Menopon* is, by subsequent designation (Johnston & Harrison, 1911, *Proc. Linn. Soc. N.S.W.* **36** : 327) " *M. gallinae* L. (syns. : *M. trigonocephalum* Olfers, *M. pallidum* N.) ". Of the names quoted by Johnston & Harrison, *Pediculus gallinae* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 613) was not mentioned by Nitzsch under that authorship or reference, but his *Liotheum* (*Menopon*) *pallidum* (*l.c.* : 299) has no description and no indication other than references to " Pulex Capi Red. exp. XVII " and " Ped. gallinae Panz. Faun. Ins. Germ. 51. f. 21 ". The former reference is a slip, since the plate in the Latin edition of Redi's work (1671, *Experimenta circa Generationem Insectorum*) which depicts an insect called *Pulex capi* is XVI, but there is nothing to suggest that the insect shown is different from *Pediculus gallinae* as depicted by Panzer (1793, *Fauna insectorum Germanicae initia* Heft **51** : 21). Panzer, however, attributed the name *gallinae* to Fabricius (1775, *Systema Entomologiae* : 809) and the latter author not only referred it to Linnaeus but his description is quoted from Linnaeus, 1758 (*Syst. Nat.* (ed. X) **1** : 613). *Liotheum* (*Menopon*) *pallidum* Nitzsch, 1818, therefore includes the species indicated by the unavailable (because pre-1758) name *Pulex capi* Redi and by *Pediculus gallinae* Linnaeus, 1758. We hereby restrict *Liotheum pallidum* Nitzsch, 1818 to his second reference, thus making the name an objective synonym of *Menopon gallinae* (Linnaeus, 1758). The citation by Johnston & Harrison of this latter as the type-species of *Menopon* is then valid under Declaration 21.

3. The type-material of *Menopon gallinae* (Linnaeus) is lost and the species is not recognizable with certainty from the description. Clay & Hopkins (1950, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **1** : 262) designated, described and figured as neotype of this nominal species a specimen of the species to which the name is usually applied. This specimen is in the British Museum (Natural History) and is labelled " NEOTYPE ♂ *Menopon gallinae* (Linn.), Brit. Mus. 1951.171, Meinertzhagen, *Gallus domesticus*, Ross-shire, Scotland, Jan. 1935,

2490 ". Clay & Hopkins also endeavoured (*l.c.*) to put the synonymy on a firm basis by designating a similar specimen as neotype of *Menopon pallidum* (Nitzsch), but the restriction, made above, has resulted in the two names becoming objective synonyms, so the neotype of one nominal species is automatically also neotype of the other.

4. The type-genus of the family-group taxon LIOTHEIDAE Burmeister, 1838, is *Liotheum* Nitzsch, 1818 (*Mag. Ent.* (Germar) **3** : 296). No nominal species were included directly under this name by Nitzsch, but he divided the genus into subgenera (all now regarded as genera) and listed under these latter headings a number of specific names of which most are *nomina nuda* whereas others have indications in the form of references to earlier descriptions and are available, though very few are valid. This has caused immense trouble and confusion, because nearly all subsequent authors took one of two erroneous views—either that all the specific names published by Nitzsch in his 1818 paper were valid or that all of them were *nomina nuda*—and this has resulted in a number of invalid type-selections for his genera. In particular, Neumann (1906, *Bull. Soc. zool. Fr.* **20** : 58) purported to select " *Liotheum* (*Colpocephalum*) *zebra* Nitzsch " as type-species of *Liotheum*, but his action was nugatory because *zebra* was a *nomen nudum* in 1818 (the species to which it was presumably intended to refer was first described by Burmeister in 1838, *Handb. Ent.* **2**(2) : 438) while other specific names referred to *Liotheum* by Nitzsch in 1818 were available. Although a few attempts have been made to use the name *Liotheum* as a senior synonym of *Colpocephalum* Nitzsch, 1818 (of which *Colpocephalum zebra* Burmeister, 1838 is the type-species) *Liotheum* has never been used in any important publication and is now disused; it would not be possible to select any available nominal species as its type without displacing either *Menopon* or some other equally well-known name which is in current use. By Opinion 342, *Colpocephalum* Nitzsch, 1818, was placed on the Official List of Generic Names in Zoology as No. 850, and *Colpocephalum zebra* Burmeister, 1838 on the Official List of Specific Names in Zoology as No. 460. Grave confusion would result, without any compensating advantage, from the revival of the disused names *Liotheum* Nitzsch, 1818 and LIOTHEIDAE Burmeister, 1838, but no inconvenience would result from their suppression.

5. Two erroneous subsequent spellings of *Menopon* require to be dealt with, of which one (*Menopum* Neumann, 1906, *Bull. Soc. zool. Fr.* **20** : 59) is entirely uncomplicated, while the other is troublesome. Harrison (1916, *Parasitology* **9** : 22) has an entry " *Maenopon* Packard, *6th Ann. Rept. U.S. Geol. Survey*, 1872, p. 731, =*Menopon* Nitzsch ". Examination of the work referred to (which was published in 1873) shows, however, that neither on p. 731 nor anywhere else in the paper does Packard spell the name *Menopon* other than correctly, while we have been unable to find the alleged misspelling in any of the numerous works published by Packard and others at about that period which we have consulted, and it is not included either in Neave's *Nomenclator Zoologicus* or in Sherborn's *Index Animalium*.

6. We therefore request the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers to suppress the generic name *Liotheum*

Nitzsch, 1818 (*Mag. Ent.* (Germar) **3** : 296) for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place on the Official List of Generic Names in Zoology the following generic name :

Menopon Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 299 (gender : neuter) (type-species, by subsequent designation by Johnston & Harrison (1911, *Proc. Linn. Soc. N.S.W.* **36** : 327) *Pediculus gallinae* Linnaeus, 1758) ;

(3) to place on the Official List of Specific Names in Zoology the following specific name :

gallinae Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 613, as published in the binomen *Pediculus gallinae* and as defined by the neotype described and figured by Clay & Hopkins, 1950 (*Bull. Brit. Mus.* (*Nat. Hist.*), *Ent.* **1** : 262, fig. 56) (specific name of type-species of *Menopon* Nitzsch, 1818 ;

(4) to place on the Official List of Family-Group Names in Zoology the following name :

MENOPONIDAE Mjöberg, 1910, *Ark. Zool.* **6**(13) : 26 (type-genus *Menopon* Nitzsch, 1818) (for use by those zoologists who consider that *Menopon* Nitzsch, 1818, *Trinoton* Nitzsch, 1818, and *Eureum* Nitsch, 1818 all belong to the same family) ;

(5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following generic names :

(a) *Liotheum* Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 296 (suppressed under the plenary powers for the purposes of the Law of Priority but not for those of the Law of Homonymy) ;

(b) *Menopum* Neumann, 1906, *Bull. Soc. zool. Fr.* **20** : 59 (an erroneous subsequent spelling for *Menopon* Nitzsch, 1818) ;

(c) *Maenopon* Packard, 1873, *Rep. U.S. geol. Surv.* **6** : 731 (an alleged, but non-existent name, Packard having used the spelling *Menopon* in the work referred to) ;

(d) *Maenopon* Harrison, 1916, *Parasitology* **9** : 22 (an erroneous subsequent spelling for *Menopon* Nitzsch, 1818);

(6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the following name :

LIOTHEIDAE Burmeister, 1838, *Handb. Ent.* **2**(2) : 436 (invalid because the name of its type-genus : *Liotheum* Nitzsch, 1818, is suppressed under the Plenary Powers in (1) above ;

(7) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following name :

pallidum Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 299, as published in the binomen *Liotheum pallidum* (a junior objective synonym of *Pediculus gallinae* Linnaeus, 1758).

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A NEOTYPE FOR *PEDICULUS DENTATUS* SCOPOLI, 1763 (INSECTA, MALLOPHAGA). Z.N.(S.) 1394

By G. H. E. Hopkins and Theresa Clay
(*British Museum (Natural History), Tring and London*)

Scopoli (1763, *Entomologia Carniolica* : 383) described under the name *Pediculus dentatus* a species of Mallophaga occurring on *Anas*. Several genera of Mallophaga occur on *Anas*, of which *Anatoecus* Cummings, 1916 (*Proc. zool. Soc. Lond.* **1916** : 653) and *Trinoton* Nitzsch, 1818 (*Mag. Ent.* (Germar) **3** : 300) are relevant to the present proposal. Scopoli's collections were destroyed in about 1776 (see Horn & Kahle, 1936, *Ent. Beihefte* **3** : 252) and none of his descriptions is adequate for the identification of the species in the absence of a type.

2. The type-species of *Anatoecus* Cummings, 1916, is (by original designation) "*Anatoecus icterodes* Nitzsch " (i.e., *Philopterus* (*Docophorus*) *icterodes* Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 290) and the genus belongs to the suborder Ischnocera. Nitzsch gave no description of *icterodes*, but there is an indication in the form of a reference to " Degeer VII. t.4.f.14 " (i.e., De Geer, 1778, *Mém. Hist. Ins.* **7** : pl. 4, fig. 14, which depicts a female *Anatoecus* which De Geer did not name). The holotype of *icterodes* is, therefore, the specimen from which De Geer's figure was drawn ; not only is this specimen lost, but it would be almost useless even if it were preserved, since the figure represents a female and the species of *Anatoecus* found on ducks are not separable in this sex. Cummings (1916, *Proc. zool. Soc. Lond.* **1916** : 658) separated duck-infesting species of *Anatoecus* into two groups, distinguished by the presence in the male genitalia of one (and absence in the other) of a structure which he called the effractor, and applied the name *icterodes* Nitzsch to the one in which the effractor is absent. Clay & Hopkins (1960, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **9** : 39) designated, described and figured a male neotype for *Philopterus* (*Docophorus*) *icterodes* Nitzsch, 1818, which would fix the name in the sense in which Cummings used it. This neotype is in the British Museum (Natural History) and is labelled "*Anatoecus icterodes* (Nitzsch, 1818), NEOTYPE, *Mergus serrator*, S. Uist, –.ix.1953, Meinertzhagen no. 20221a, B.M. 1953, 658 ".

3. The type-species of *Trinoton* Nitzsch, 1818 (*Mag. Ent.* (Germar) **3** : 300, as a subgenus of *Liotheum*) is, by monotypy, *Liotheum* (*Trinoton*) *conspurcatum* Nitzsch, 1818 (*l. c.* : 300), a *nomen novum* for *Pediculus anseris* Sulzer, 1776, *nec* Linnaeus, 1758, and a subjective synonym of *Trinoton anserinum* (Fabricius, 1805, *Syst. Antliatorum* : 345). In contrast to *Anatoecus*, which belongs to the Ischnocera, *Trinoton* belongs to the suborder Amblycera. The type-material of *Liotheum conspurcatum* Nitzsch is lost, but that of *Pediculus anserinus* Fabricius is preserved in Copenhagen.

4. The type-species of *Philopterus* Nitzsch, 1818 (*Mag. Ent.*, (Germar) **3** : 288) is, by subsequent designation (Neumann, 1906, *Bull. Soc. zool. Fr.* **20** : 58), *Pediculus ocellatus* Scopoli, 1763, which Neumann erroneously attributed to

Nitzsch, and the type-species of *Docophorus* Nitzsch, 1818 (*l.c.* : 289) is, by subsequent designation (Clay, 1938, *Entomologist* **71** : 207) also *Pediculus ocellatus* Scopoli, so the two generic names are objective synonyms. As noted above, Scopoli's collections are lost and his descriptions are inadequate ; moreover, in this instance, his host-records indicate that his type-material almost certainly included at least two species. For these reasons Clay & Hopkins (1951, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **2** : 8) designated, described and figured a neotype for *Pediculus ocellatus* Scopoli, 1763 (*Entomologia Carniolica* : 382) which would fix the name in harmony with current usage. This neotype is in the British Museum (Natural History) and is labelled : " NEOTYPE, *Philopterus ocellatus* Scopoli, *Corvus corone sardonius*, Yugoslavia, no. 484 ".

5. The name *dentatus* Scopoli was placed by Denny (1842, *Monographia Anoplurorum Britanniae* : 102) as a synonym of *Docophorus* (now *Anatoecus*) *icterodes* Nitzsch, though he qualified this synonymy by the addition of a question-mark which was removed by Giebel in 1874 (*Insecta epizoa* : 115). Until 1916 it was usual to apply the name *icterodes* to any species resembling that of which Giebel (1874, *Insecta epizoa* : pl. 10, fig. 8) had published Nitzsch's drawing, and to place *dentatus* Scopoli as a synonym in spite of the fact that it is much the older name. In 1916, however, Harrison (*Parasitology* **9** : 13, 93) reversed this arrangement, placing *icterodes* as a synonym of *dentatus*, which he listed as the valid name for all duck-infesting nominal species of what is now the genus *Anatoecus*, all of which he considered to be synonymous. Almost simultaneously Cummings (1916, *Proc. zool. Soc. Lond.* **1916** : 658) erected the genus *Anatoecus* and showed that it contains two groups of species characterized by the presence or absence of the effractor, as mentioned above. After 1916 the name *dentatus* was in general use for a duck-infesting species of *Anatoecus*, but it was usually impossible to tell whether any given author was applying it to the species with an effractor or the one without ; probably most authors had both. Thus the name has been applied to one or more species of *Anatoecus* for about 100 years (until 1916 only as a synonym) though the specific name *icterodes* Nitzsch was also sometimes used. Clay & Hopkins (1951, *Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **2** : 17), finding that both *Anas platyrhynchos* Linn. (the host from which *Pediculus dentatus* Scopoli was probably obtained) and *Mergus serrator* Linn. (the host of *Philopterus icterodes* Nitzsch) are infested by an *Anatoecus* of each group and that Cummings had used the latter name for the species without an effractor, decided that the best solution of the muddle was to fix the name *dentatus* Scopoli on the species in which this structure is present. They therefore designated and figured a neotype which fixed the name in this sense and which has been accepted by all subsequent authors until now. The neotype is in the British Museum (Natural History) and is labelled " NEOTYPE, *Anatoecus dentatus* (Scopoli), Brit. Mus. 1951, 171, Meinertzhagen, *Anas. p. platyrhynchos*, N.E. Poland, Aug. 1945, 4176 ".

6. Dr. S. von Kéler has now suggested to us, however (*in litt.*) that certain points in Scopoli's description are inconsistent with the reference of *Pediculus dentatus* to *Anatoecus* and indicate that Scopoli's insect belonged to the genus *Trinoton* Nitzsch, 1818. On re-examining Scopoli's description we are forced

to agree that Dr. von Kéler is right and that Scopoli's *dentatus* probably belonged to the genus *Trinoton*, to which no subsequent author has referred the insect.

7. Both the insect to which the specific name *dentatus* was apparently applied by Scopoli and the composite to which all subsequent authors have applied the name are of some veterinary importance, since they parasitize domestic ducks. The confusion which would arise if the name were to be transferred, after over a century, from a member of one of the two suborders of Mallophaga to a species belonging to the other suborder is so obvious that we considered asking the Commission to suppress Scopoli's name, but there are serious objections to this course. Not only has the name *Anatoecus dentatus* (Scopoli) now been accepted for some years as the valid name for the duck-infesting species of *Anatoecus* in which the male possesses an effractor, but it would be almost impossible to ascertain what the valid name of the species is if *dentatus* cannot be used for it. Of the five next senior nominal species of duck-infesting *Anatoecus*, the type of the first (*Anatoecus icterodes* (Nitzsch, 1818)) should be in De Geer's collection at Stockholm but is not there, and the name is in use for the species without an effractor, while the types of the other four were in the Halle collection of Mallophaga, which was almost totally destroyed during the second World War, and are not in the small portion of the collection which survived. In none of the instances is it possible to decide from the description to which species of *Anatoecus* a given name refers.

8. *Anatoecus* Cummings is referred to the family PHILOPTERIDAE Burmeister, 1838, of which DOCOPHORIDAE Mjöberg, 1910 is an objective synonym. *Trinoton* Nitzsch is the type-genus of TRINOTONIDAE Eichler, 1941, which many specialists consider inseparable from MENOPONIDAE Mjöberg, 1910; the latter name, together with LIOTHEIDAE Burmeister, 1838, is dealt with in an application made simultaneously with this one. *Pediculus* Linnaeus, 1758, does not belong to the Mallophaga.

9. In order to avoid the confusion which would result from alteration of the accepted application of the specific name *dentatus*, we ask the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers to direct that, notwithstanding the fact that certain points in the original description of *Pediculus dentatus* Scopoli, 1763 are not consistent with the neotype designated by Clay & Hopkins (1951, *Bull. Brit. Mus.* (*nat. Hist*), *Ent.* **2** : 17, figs. 21–22, pl. 1, fig. 5), the species so named by Scopoli is to be interpreted by reference to that neotype ;

(2) to place on the Official List of Generic Names in Zoology the following generic names :

   (a) *Anatoecus* Cummings, 1916, *Proc. zool. Soc. Lond.* **1916** : 653 (gender : masculine) (type-species, by original designation : *Philopterus icterodes* Nitzsch, 1818) ;

   (b) *Trinoton* Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 300 (gender : neuter) (type-species, by monotypy, *Liotheum* (*Trinoton*) *conspurcatum* Nitzsch, 1818 (*Mag. Ent.* (Germar) **3** : 300) ;

   (c) *Philopterus* Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 288 (gender :

masculine) (type-species, by subsequent selection by Neumann, 1906, (*Bull. Soc. zool. Fr.* **20** : 58) : *Pediculus ocellatus* Scopoli, 1763) ;

(3) to place on the Official List of Specific Names in Zoology the following specific names :

- (a) *dentatus* Scopoli, 1763, *Entomologia Carniolica* : 383 (as published in the binomen *Pediculus dentatus*), as defined under the plenary powers in (1) above by the neotype designated by Clay & Hopkins, 1951 (*Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **2** : 17, figs. 21–22, pl. 1, fig. 5) ;
- (b) *icterodes* Nitzsch, 1818, *Ent. Mag.* (Germar) **3** : 290 (as published in the binomen *Philopterus icterodes*), as defined by the neotype designated by Clay & Hopkins, 1960 (*Bull. Brit. Mus.* (*nat. Hist.*), *Ent.* **9** : 37, figs. 59–61, pl. 2, fig. 3) (specific name of type-species of *Anatoecus* Cummings, 1916);
- (c) *anserinus* J. C. Fabricius, 1805, *Syst. Antliatorum* : 345 (as published in the binomen *Pediculus anserinus*) (the oldest available name for the type-species of *Trinoton* Nitzsch, 1818) ;
- (d) *ocellatus* Scopoli, 1763, *Entomologia Carniolica* : 382 (as published in the binomen *Pediculus ocellatus*), as defined by the neotype designated by Clay & Hopkins, 1951, *Bull. Brit. Mus.* (*nat. Hist*), *Ent.* 2 : 8, figs. 8, 9, 11, pl. 1, fig. 2) (type-species of *Philopterus* Nitzsch, 1818) ;

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names :

- (a) *Trinotum* Burmeister, 1838, *Handb. Ent.* 2(2) : 440 (erroneous subsequent spelling for *Trinoton* Nitzsch, 1818) ;
- (b) *Trinotion* Perry, 1876, *Proc. lit. phil. Soc. Liverpool* **30** : lxxxi (erroneous subsequent spelling for *Trinoton* Nitzsch, 1818) ;
- (c) *Docophorus* Nitzsch, 1818, *Mag. Ent.* (Germar) **3** : 289 (a junior objective synonym of *Philopterus* Nitzsch, 1818) ;

(5) to place on the Official List of Family-Group Names in Zoology the following names :

- (a) PHILOPTERIDAE Burmeister, 1838, *Handb. Ent.* 2(2) : 422 (type-genus *Philopterus* Nitzsch, 1818) ;
- (b) TRINOTONIDAE Eichler, 1941, *Arch. Naturgesch.* (N.F.) **10** : 382 (type-genus: *Trinoton* Nitzsch, 1818) (for use by those zoologists who consider that *Menopon* Nitzsch, 1818 and *Trinoton* Nitzsch, 1818, belong to different family-group taxa) ;

(6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the following name :

- (a) DOCOPHORIDAE Mjöberg, 1910, *Ark. Zool.* 6(13) : 108 (type-genus : *Docophorus* Nitzsch, 1818 (a junior objective synonym of PHILOPTERIDAE Burmeister, 1838).

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE THE NOMINAL SPECIES *BUCCINUM AUSTRALE* GMELIN, 1791, AS TYPE-SPECIES OF THE NOMINAL GENUS *PHASIANELLA* LAMARCK, 1804 (CLASS GASTROPODA). Z.N.(S.) 1433

By L. R. Cox (*British Museum* (*Natural History*), *London*)

The well-known gastropod genus *Phasianella* was founded by J. B. de Lamarck in 1804 (*Ann. Mus. Hist. nat.* Paris, 4 : 295), in one of a series of memoirs describing the Eocene shells of the neighbourhood of Paris. Lamarck began the observations which followed his formal Latin diagnosis of the genus as follows :—" J'ai donné à ce genre le nom de phasianelle, d'après celui d'une coquille qui m'a fourni l'occasion de l'établir, et qui est connue sous le nom de faisan (*phasianus*)." After a few remarks on this Recent marine shell and a promise to describe it in the same periodical when illustrations were finished, but without assigning any specific name to it, Lamarck proceeded to describe and figure two Eocene species, *Phasianella turbinoides* and *P. semistriata*.

2. The following remarks on the type-species of *Phasianella* have been made in a recent work by W. P. Woodring (1957, *U.S. Geol. Surv. Prof. Paper* **306A** : 65) :—" Despite Lamarck's clear intention and although there is no doubt about the identification of the shell he mentioned and partly described, he cited no references that could be used in fixing its Latin name. Therefore the view that *faisan* (=*Buccinum australe* Gmelin) is the type by original designation (Woodring, 1928) is hardly admissible. The deficiency in Lamarck's treatment was rectified within the next year by Roissy (1805 or 1806 [*Hist. nat. Moll.* 5] : 330) when he wrote " Le type de ce nouveau genre, que l'on doit encore à M. de Lamarck, est une jolie coquille appelée *faisan* . . . ". He stated that this species is from New Holland and on the next page described it as *Phasianella variegata*, citing *Buccinum tritonis* Chemnitz in synonymy. This is an unequivocal type-designation and it is irrelevant that Lamarck used only a vernacular name for the type-species. The type of *Phasianella* therefore is *P. variegata* Roissy (=*Buccinum australe* Gmelin). Roissy's action fortunately saves the traditional usage of *Phasianella*."

3. Mr. Robert Robertson, who in a recent review of Western Atlantic PHASIANELLIDAE (1958, *Johnsonia*, Cambridge, Mass. 3 : 255) has accepted Woodring's views, has further maintained (*in litt.*) that justification for accepting a species named only in the vernacular as an originally included nominal species available for subsequent designation as type-species is found in a decision (based on Opinion 35) made at the Paris Congress in 1948, that " where, prior to 1st January, 1931, a genus was established without a designated or indicated type-species, any of the species originally included in the genus is eligible for subsequent selection by the same or another author as the type-species of the genus, irrespective of whether or not that species was cited under

a binominal name at the time of the original publication of the generic name" (1950, *Bull. zool. Nomencl.* **4** : 156).

4. Two comments may be made on the views presented in the foregoing paragraphs. First, the ruling given in Opinion 35 related to "binary but not binominal" authors and made no mention of vernacular names. It can scarcely be claimed that "*faisan*" satisfies even the requirements for a "binary" name. Secondly, vernacular names have, under the Rules, no existence in zoological nomenclature, so that no such name can be held to designate a nominal species in a valid way. The status of *Phasianella* under a strict interpretation of the Rules is clear : the only species eligible for designation as type-species are those cited with available names in the original establishment of the genus, namely, the Eocene fossil species *Phasianella turbinoides* Lamarck, 1804 and *P. semistriata* Lamarck, 1804. It may be added that, with very few exceptions, possibly one only, all authors subsequent to Roissy, from J. G. Children (1823) to W. Wenz (1938), have cited *Buccinum australe* Gmelin or a synonym as type-species of *Phasianella*. The one known exception is G. F. Harris, who in 1897 (*Catalogue Tert. Moll. Brit. Mus.* (*Nat. Hist.*), *Austr. Tert. Moll.* : 275) cited *Phasianella turbinoides* as type. This is the first valid type-designation known for the genus ; the species is not now, however, referred to *Phasianella*, but is the type-species, by original designation, of *Phasianochilus* Cossmann, 1918, *Essais Paléoconch. comp.* (11) 164. *Phasianella semistriata* Lamarck, 1804, is also currently referred to this genus (generally treated as of subgeneric rank).

5. The nominal species *Phasianella variegata* Roissy, 1805, was thus not eligible for designation by Roissy himself as type-species of *Phasianella* (paragraph 2 above), since it cannot be regarded as one of the species originally included in the genus by Lamarck in 1804. This species was based on Roissy's description and on the following citation in synonymy :—Chemnitz, 1786, *Conchyl.-Cab.*(1) **9**(2) : 38–40, pl. 120, figs. 1033–1034. It has always been regarded as a synonym of *Buccinum australe* Gmelin, based on the same figures of Chemnitz and on a figure of Favannes, 1784, *Cat. syst. rais. magn. Cab.* [*Comte de la Tour d'Auvergne*] : 11, pl. 1, fig. 46, and Gmelin's name is the valid name for the species. I therefore select the original of Chemnitz's figures as the lectotype both of *Buccinum australe* Gmelin, 1791, and of *Phasianella variegata* Roissy, 1805, thereby rendering the latter a junior objective synonym of *Buccinum australe* Gmelin, 1791, *Syst. Nat.* (ed. 13) : 3490, and I ask the Commission to use its plenary powers to designate *Buccinum australe* Gmelin as the type-species of *Phasianella* Lamarck, 1804.

6. The nominal genus *Phasianella* is the type-genus of the family-group unit first named by Swainson (1840, *Treatise Malac.* : 354) as PHASIANELLINAE, and that name (currently used to denote the family PHASIANELLIDAE) should be placed on the Official List of Family-Group Names in Zoology.

7. I therefore ask the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers to set aside all designations of a type-species for the nominal genus *Phasianella* Lamarck, 1804, prior to the Ruling now asked for and, having done so, to designate the nominal species

Buccinum australe Gmelin, 1791, as the type-species of that nominal genus ;

(2) to place the generic name *Phasianella* Lamarck, 1804 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Buccinum australe* Gmelin, 1791, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *australe* Gmelin, 1791, as published in the binomen *Buccinum australe* (type-species, by designation under the Plenary Powers in (1) above, of *Phasianella* Lamarck, 1804), on the Official List of Specific Names in Zoology ;

(4) to place the family-group name PHASIANELLINAE Swainson, 1840 (type-genus *Phasianella* Lamarck, 1804), on the Official List of Family-Group Names in Zoology.

COMMENTS ON THE PROPOSED DESIGNATION OF A TYPE-SPECIES FOR THE GENUS *TANYTARSUS* VAN DER WULP, 1874. Z.N.(S.) 1245.

By W. M. Beck (*Florida State Board of Health, Jacksonville, Florida, U.S.A.*)

Reference is made to a recent separate of a proposal by Dr. Paul Freeman relative to the use of the plenary power of the International Commission to validate the familiar usage of the generic name *Tanytarsus* van der Wulp, 1874.

I wish to report that I am in complete favor of Dr. Freeman's proposal. In my opinion, any such decision by the International Commission could only serve to straighten out the horrible taxonomic confusion which now exists in the family Chironomidae.

By K. Strenzke (*Max-Planck-Institut für Meeresbiologie, Wilhelmshaven, Germany*)

Ich Schliesse mich dem von Herrn Dr. P. Freeman unter Punkt 10 (1–4) formulierten Antrag mit der unter Punkt—dieses Antrags angeführten Begründung voll inhaltlich an.

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE NAME *AEDIPODA PELLARINI* LE GUILLOU, 1841 (CLASS INSECTA, ORDER ORTHOPTERA, AS A *NOMEN DUBIUM*. Z.N.(S.) 1436

By K. H. L. Key (*Commonwealth Scientific and Industrial Research Organization, Canberra, Australia*)

Le Guillou (1841, *Rev. Zool.* **4** : 295) has described a grasshopper, said to have been collected in Northern Australia, under the name *Aedipoda pellarini*. The description comprises three lines and there are no figures. Nothing is known of any type material, at the Muséum National d'Histoire Naturelle in Paris or elsewhere ; such material has apparently long ceased to exist.

2. Kirby (1910, *Cat. Orthopt.* **3**(2) : 342) cites this species as *Oedipoda* (?) *pellarini* Le Guill., as does Sjöstedt (1921, *K. svensk. Vetensk. Akad. Handl.* **62**(3) : 55 ; 1935, *ibid.* (3)**15** : 46) in his two monographs on the Australian Acridoidea. Sjöstedt adds " mihi ignota " to both citations. To my knowledge, no author since Le Guillou has claimed to be able to recognise *pellarini* or to place it in a modern genus. The description does not even permit its subfamily to be determined (Key, 1959, *Eos*, in the press).

3. In the circumstances, this name has only a nuisance value in the literature and should be suppressed as a *nomen dubium*. At the same time it should be noted that the generic name *Aedipoda* used by Le Guillou is nothing but an erroneous subsequent spelling of *Oedipoda* Latreille, 1829, which was itself placed on the Official List in Opinion 149. I therefore propose that the International Commission on Zoological Nomenclature should :

(1) use its plenary powers to suppress the specific name *pellarini* Le Guillou, 1841, as published in the binomen *Aedipoda pellarini* ;

(2) place the above specific name on the Official Index of Rejected and Invalid Specific Names in Zoology ;

(3) place the generic name *Aedipoda* Le Guillou, 1841 (an erroneous subsequent spelling of *Oedipoda* Latreille, 1829) on the Official Index of Rejected and Invalid Generic Names in Zoology.

SUPPORT FOR THE ABOVE APPLICATION

The above application by Dr. Key is supported by Dr. D. R. Ragge (British Museum (Natural History) London) and by Dr. V. M. Dirsh (Anti-Locust Research Centre, London).

SUPPLEMENTARY NOTE TO DR. KEY'S APPLICATION CONCERNING *AEDIPODA PELLARINI* LE GUILLOU, 1841

By R. V. Melville (*Assistant Secretary, International Commission on Zoological Nomenclature*)

In examining the implications of Dr. Key's proposal to place the generic name *Aedipoda* Le Guillou, 1841, on the Official Index as an erroneous subsequent spelling of *Oedipoda* Latreille, 1829, it was found that certain subsidiary matters relating to the latter name had not been dealt with when it was placed on the Official List by the ruling given in Opinion 149 (1943). The Commission is now invited to dispose of these matters, which are explained below.

2. According to Neave, 1940, *Nomencl. Zool.* 3(M–P) : 392, *Oedipoda* Latreille, 1829, was "*pro Oedipus* Berthold, 1827" (*in* Latreille, *Nat. Fam. Thierr.* : 441). It does not appear from the original establishment of *Oedipoda* that it was published as a replacement name for *Oedipus* Berthold, which is based on a brief description, without any originally included species. Dr. David Ragge (British Museum (Natural History) London) tells me that he knows of no use of *Oedipus* Berthold in Orthoptera, nor of any work in which species are referred to it. Nevertheless, *Oedipus* Berthold, 1827, is certainly an available name and a *nomen dubium*, and as such should not be allowed to continue to offer a potential threat to stability of nomenclature.

3. There are four junior homonyms of *Oedipus* Berthold, 1827, as follows : *Oedipus* Tschudi, 1838, Class. Batr. (*Mém. Soc. Sci. Neuchatel* 2 : 28, 93) (Amphibia) ; *Oedipus* Lesson, 1840, *Spec. Mamm.* : 197 (Mammalia) ; *Oedipus* Dana, 1852 (Crustacea) (placed on the Official Index in Opinion 470) ; and *Oedipus* Menge, 1876, *Schr. Ges. Danzig* N.F. 4(1) : 482 (Arachnida). None of these names is in current use, either because replacement names have been expressly proposed for them, or because the species concerned are referred to other taxonomic genera.

4. The significant points are, therefore, that *Oedipus* Berthold, 1827, should be suppressed under the plenary powers as a *nomen dubium*, and that this should be done in such a way as not to revive any of the three junior homonyms not so far considered by the Commission. In other words, *Oedipus* Berthold, 1827, should be suppressed in such a way as to retain its rights under the Law of Homonymy. I therefore propose that the International Commission on Zoological Nomenclature should :

(1) use its plenary powers to suppress the generic name *Oedipus* Berthold, 1827, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
  (a) *Oedipus* Berthold, 1827, as suppressed under the plenary powers in (1) above ;
  (b) the following junior homonyms of *Oedipus* Berthold, 1827 :
    (i) *Oedipus* Tschudi, 1838 ;
    (ii) *Oedipus* Lesson, 1840 ;
    (iii) *Oedipus* Menge, 1876.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES FOR *REGINA* BAIRD & GIRARD, 1853 (REPTILIA). Z.N.(S.) 1443

By Hobart M. Smith and James E. Huheey (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

The object of this application is to suppress under the plenary powers the specific name *leberis* Linnaeus, 1758, as published in the binomen *Coluber leberis*, a name recently discovered to be a senior subjective synonym of another specific name which is commonly in use. The use of the plenary powers is also requested in order to designate a type-species for the genus *Regina* Baird & Girard which was originally based on a misidentification of *Coluber leberis*.

2. On zoological grounds it is apparent that the nominal species *Coluber leberis* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 216) is a senior synonym of *Coluber occipitomaculatus* Storer, 1839 (*Rept. Mass.* : 230), accepted since 1853 as *Storeria occipitomaculata* (Storer). The original description of the species *leberis* gives the following information : male, 110 ventrals, 50 caudals, dark-striped, habitat in " Canada " *fide* Kalm. This description can fit only *Storeria occipitomaculata* auctorum, even if the geographic area is expanded to include eastern United States. Klauber (*Copeia*, **1948** : 11–12) has already noted the possibility of taxonomic equivalence of *Coluber leberis* Linnaeus, and *Coluber occipitomaculata* Storer, but was not prepared to express positive opinion. For our own part, we hold no doubts in the matter.

3. Baird & Girard, 1853 (*Cat. n. Amer. Rept.* : 45) set up the new genus *Regina*. In the Introduction to this work they state (: viii) " . . . the first mentioned species is to be considered as the type of the genus ". The type-species of *Regina* is " *Regina leberis* B. & G." and the synonymy given shows that the specific name is from *Coluber leberis* Linnaeus, 1758. However, the description of the genus and the species, as well as the inclusion of *Coluber septemvittatus* Say, 1825 (*J. Acad. nat. Sci. Philad.* **4** : 240) (=*Natrix septemvittata*) in the specific synonymy clearly show that Baird & Girard misidentified the type-species in applying to it the name *Coluber leberis* Linnaeus. Almost without exception, however, it has been taken for granted that the type-species of *Regina* is the species now known as *Natrix septemvittata.*

4. Four species universally referred for the past forty years or more to the large genus *Natrix* have recently been segregated generically (Smith & Huheey, 1960, *Trans. Kans. Acad. Sci.* **62**, in press). This group of species has often been referred to informally as the " Regina " group, since it includes *Coluber septemvittatus*, commonly accepted as the type-species of the nominal genus *Regina*, in turn the earliest generic name having as type any of the four species of the group.

Bull. zool. Nomencl., Vol. 17, pts. 9–11. September 1960.

5. Two other names have been based upon species of the " Regina " group : (1) *Cora* Jan, 1863, (*Elenco Sist. Ofidi* : 74, type by monotypy, *Regina kirtlandii* Kennicott, 1856), invalid because a junior homonym of *Cora* Selys, 1853 (*Bull. Acad. roy. Sci. Belg.*, Suppl. : 71 ; Odonata) and of *Cora* Bonaparte, 1854 (*Ann. Sci. nat. Paris*, (4) **1**(3) : 138 ; Aves) ; and (2) *Clonophis* Cope, 1889 (*Proc. U.S. nat. Mus.* [1888]**11** : 391, type by monotypy, *Regina kirtlandii* Kennicott, 1856). Neither *Cora* nor *Clonophis* has been utilized to a noteworthy degree, either formally or informally, whereas the name *Regina* was frequently used in a formal sense prior to 1900, and occasionally in an informal sense since 1900.

6. In accordance with the spirit of the International Code of Zoological Nomenclature, as stated in the Preamble to the Rules, we recommend suppression of the name *Coluber leberis* Linnaeus, for the purposes of the Law of Priority, in order that the name *Storeria occipitomaculata* may remain applicable to the species to which that name has been applied for over a hundred years. The generic name *Storeria* was published by Baird & Girard, 1853 (*op. cit.* : 135), type-species, by original designation, *Tropidonotus dekayi* Holbrook, 1842 (*N. Amer. Herpet.* **4** : 53).

7. In accordance with the procedure outlined by the Code, we also recommend designation of *Coluber septemvittatus* Say as the type-species of *Regina*, in order that the name *Regina* may remain applicable as interpreted for over a hundred years.

8. No family-group names have ever been based upon *Regina* or *Storeria*. Both genera are currently placed in the family COLUBRIDAE and commonly in the subfamily NATRICINAE.

9. We therefore request that the International Commission on Zoological Nomenclature should :—

(1) use its plenary powers :
  (a) to suppress the specific name *leberis* Linnaeus, 1758, as published in the binomen *Coluber leberis*, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
  (b) to suppress all designations of type-species for the nominal genus *Regina* Baird & Girard, 1853, made prior to the Ruling now requested, and, having done so, to designate *Coluber septemvittatus* Say, 1825, to be the type-species of that genus ;
(2) place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Regina* Baird & Girard, 1853 (gender : feminine), type-species, by designation under the plenary powers in (1)(b) above, *Coluber septemvittatus* Say, 1825 ;
  (b) *Storeria* Baird & Girard, 1853 (gender : feminine), type-species, by original designation, *Tropidonotus dekayi* Holbrook, 1842 ;
(3) place the following specific names on the Official List of Specific Names in Zoology :
  (a) *septemvittatus* Say, 1825, as published in the binomen *Coluber septemvittatus* (type-species of *Regina* Baird & Girard, 1853) ;

  - (b) *dekayi* Holbrook, 1842, as published in the binomen *Tropidonotus dekayi* (type-species of *Storeria* Baird & Girard, 1853) ;
  - (c) *occipitomaculatus* Storer, 1839, as published in the binomen *Coluber occipitomaculatus* ;

(4) place the specific name *leberis* Linnaeus, 1758, as published in the binomen *Coluber leberis* (suppressed under the plenary powers in (1)(a) above) on the Official Index of Rejected and Invalid Specific Names in Zoology ;

(5) place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :

  - (a) *Cora* Bonaparte, 1854 (a junior homonym of *Cora* Selys, 1853) ;
  - (b) *Cora* Jan, 1863 (a junior homonym of *Cora* Selys, 1853).

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE *RHYNCHONELLA REFRACTIFRONS* BITTNER, 1890, AS THE TYPE-SPECIES OF THE NOMINAL GENUS *NORELLA* BITTNER, 1890 (PHYLUM BRACHIOPODA, CLASS ARTICULATA). Z.N.(S.) 1445

By D. V. Ager (*Imperial College of Science and Technology, London*)

The generic name *Norella* Bittner, 1890 (*Abh. k.-k. geol. Reichsanst.* **14** : 315) has been in general use in only one taxonomic sense ever since its first publication. In this usage it denotes a group of Triassic rhynchonelloid brachiopods of unusual form, with the dorsal (brachial) valve deeply sulcate. In nearly all other brachiopods of this group, the dorsal valve is convexly folded to a greater or less degree, and it is the ventral (pedicle) valve that bears a median sinus. In ontogenetic studies of Jurassic rhynchonelloids, S. S. Buckman (1918, *Palaeont. Indica* (N.S.) **3**(2) : 1–299) claimed that the dorsal valve is sulcate in the early growth-stages of many of these forms, before the normal median dorsal fold is developed, and coined the terms " norella stage " and " norelliform " to denote this condition. More recently (1959, *J. Paleont.* **33** : 330) I have established a subfamily NORELLINAE to contain *Norella* and five related genera. Under the Rules, however, it appears that the nominal type-species of the genus is a species with a dorsal median fold, similar to the Lower Jurassic genus *Homoeorhynchia* S. S. Buckman, 1918, and it is the object of this application to prevent the confusing transfer of the generic name from one group of species to another that would be caused by the strict application of the Rules.

2. Bittner included several species in his new genus *Norella*, but he did not designate or indicate any one of them as the type-species. The first species mentioned was " *Rhynchonella sellaris* Lbe. sp." (*op. cit.* : 315), but he did not describe or figure this species, which seems to have been cited first merely because it is geologically the oldest. His chief emphasis throughout was on his own species *Rhynchonella refractifrons* (: 34). However, Hall & Clarke (1894, *N.Y. State geol. Surv.*, 13th Ann. Rep. (1893) : 833) designated " *Norella sellaris* Laube " as type-species, while still following Bittner's emphasis and using one of his figures of *Norella refractifrons* to illustrate the genus.

3. It is clearly necessary before proceeding further to determine what is the nominal species cited by Bittner as *Rhynchonella sellaris* Laube. In 1866, Laube (*Denkschr. k. Akad. Wiss. Wien* **25**(2) : 18, pl. 12, fig. 8) had described and figured a species of *Norella* with the name *Spirigera sellaris* Klipstein : that is, he clearly identified his material with *Terebratula sellaris* Klipstein, 1845 (*Beitr. geol. topogr. Kenntn. östl. Alpen* **1** : 214). In so doing, Laube was guilty of a gross misidentification, for the true *Terebratula sellaris* Klipstein is a rhynchonelloid of normal type, with a strong median dorsal fold like that of the Lower Jurassic genus *Homoeorhynchia*. Bittner showed that he was aware of this error, for he cited (*op. cit.* : 85) " ? *Rhynchonella sellaris* Laube spec. (syn. *Spirigera sellaris* Klipst. spec. bei Laube . . . *non Terebratula sellaris* Klipst. !) ". Had Bittner himself designated the species

in question as the type-species of his new genus *Norella*, then, under the Rules as revised by the London (1958) Congress, that species would be cited as " *Norella sellaris* Bittner ", but the Rules do not cover cases of the present type where a species cited by the original author of a generic name under a deliberately misapplied specific name is subsequently designated as the type-species of the genus. Under the Rules as they now stand, therefore, the nominal species designated by Hall & Clarke as the type-species of *Norella* is *Terebratula sellaris* Klipstein, 1845.

4. S. S. Buckman (1918 : 15) objected to Hall & Clarke's designation on purely taxonomic grounds, as follows : " It is not the first species described, but is only the first species which happened to be casually mentioned ; and it was placed first because it is geologically oldest, not because it is most typical . . . It may be doubted if their selection of a type which was not one of the actual series described and utilised for observation by Bittner is really valid under the circumstances . . . Bittner did not in so many words actually mention his genoholotype ; but he gave sufficient indication that *R. refractifrons* should be so considered." It is clear from the context that Buckman was speaking in terms of the species actually figured by Laube, and that he considered even this, which is now accepted as a *Norella*, to be unsatisfactory for the purpose. The true *Terebratula sellaris* Klipstein, however, is even more unsuitable, for not only would its acceptance as type-species involve a confusing transfer of the generic name from the group of species to which it has always been applied to another group, but it is itself little known, variously interpreted, and insufficiently described. It is therefore uncertain what the precise new meaning of *Norella* would be if the Rules were to be strictly applied. I propose to give a new name to the species that was actually before Laube, but this nominal species will not be eligible for designation as the type-species of *Norella*, and even if it were so, I am strongly of the opinion that *R. refractifrons* is greatly to be preferred.

5. I therefore request the International Commission on Zoological Nomenclature :

(1) to use its plenary powers :
    (a) to suppress all designations of type-species for the nominal genus *Norella* Bittner, 1890, made prior to the ruling now asked for, and
    (b) having done so, to designate the nominal species *Rhynchonella refractifrons* Bittner, 1890, as the type-species of that nominal genus ;
(2) to place the generic name *Norella* Bittner, 1890 (gender : feminine), type-species, by designation under the plenary powers in (1)(b) above, *Rhynchonella refractifrons* Bittner, 1890, on the Official List of Generic Names in Zoology ;
(3) to place the specific name *refractifrons* Bittner, 1890, as published in the binomen *Rhynchonella refractifrons* (type-species of *Norella* Bittner, 1890) on the Official List of Specific Names in Zoology ;
(4) to place the family-group name NORELLINAE Ager, 1959 (type-genus *Norella* Bittner, 1890) on the Official List of Family-group Names in Zoology.

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE SPECIFIC NAME *TRIGONALIS* R. ETHERIDGE JUN., 1876, AS PUBLISHED IN THE BINOMEN *MYALINA* ? *TRIGONALIS* (CLASS PELECYPODA). Z.N.(S.) 1446

By R. B. Wilson (*Geological Survey Office, Edinburgh, Scotland*)

In 1876, R. Etheridge jun. (*Ann. Mag. nat. Hist.* (4) **18** : 103, pl. 4, fig. 8) described and figured a new species of fossil pelecypod from the Calciferous Sandstone Series (Lower Carboniferous) of Cockburnspath, Scotland. He named his species *Myalina* ? *trigonalis*, and in his discussion said that he was uncertain to which of three genera the species ought to be referred. His figure shows a small and incomplete internal mould, and in the absence of the type-specimen the species cannot be reliably identified.

2. Two years later (1878, *Quart. J. geol. Soc. London* **34** : 12, pl. 1, figs. 12–14) Etheridge described and figured *Anthracoptera* ? *obesa*, also from the Calciferous Sandstone Series. The generic name *Anthracoptera* Salter, 1863, is a junior subjective synonym of *Naiadites* Dawson, 1860, and the binomen *Naiadites obesus* (R. Etheridge, jun.) has been in constant use since 1895 for the species described by Etheridge in 1878. This species occurs in abundance at several horizons in the Calciferous Sandstone Series of Scotland, and from this fact the name is recorded in general works dealing with the geology of the area and is familiar to students and others besides professional palaeontologists. It has been repeatedly figured and described since its first publication, e.g. by W. Hind (1895, Monograph of *Carbonicola*, *Anthracomya* and *Naiadites* (*Palaeont. Soc.*) : 144–7, pl. 19, figs. 8–11, 15, 16) ; D. Leitch (1942, *Trans. Geol. Soc. Glasgow* **20** : 208–15, pl. 3, figs. *l–o*, *q* and text-fig. 5) ; A. E. Trueman and J. Weir (1956, Monograph of British Carboniferous non-marine Lamellibranchia (*Palaeont. Soc.*) : 261–5, pl. 31, figs. 14–29, 43). On the other hand, Etheridge's earlier specific name *trigonalis* is not even mentioned by any of these authors, and it has never been used after the first mention.

3. There are two reasons why *Myalina* ? *trigonalis* R. Etheridge jun., 1876, has not been used. The first is that the illustration is poor and does not correspond to any other named fossil species. The second is that the type-specimen was unknown, so that there was no accessible standard of reference whereby the meaning of the name could be ascertained. Recently, however, two syntypes (apparently constituting the whole of the original type-series) have been discovered in the Royal Scottish Museum, Edinburgh. Dr. J. Weir (University of Glasgow, Scotland) agrees with me that these specimens, insofar as they are determinable, are two young or dwarfed specimens of *Naiadites obesus* in a poor state of preservation. It is therefore now for the first time clear that the species widely known for over 60 years as *Naiadites obesus*, and so named in a number of specialist works as well as in publications of general interest, ought under the Rules to be called *Naiadites trigonalis*. This change in a well-established name would not only be objectionable for

Bull. zool. Nomencl., Vol. 17, pts. 9–11. September 1960.

its own sake, but would also be liable to produce confusion between *Naiadites trigonalis* from the Scottish Lower Carboniferous and *Naiadites triangularis* (J. de C. Sowerby) from the Upper Carboniferous Coal Measures of England and Scotland.

4. There is one further point of interest in this species. *Naiadites* is essentially a non-marine genus of the generally marine family MYALINIDAE, which is abundantly represented in British Lower Carboniferous marine strata. *Naiadites obesus*, which displays the diagnostic external and internal characters of the genus, is the oldest known member of the genus. It is thus plausibly held to demonstrate one possible source for the evolution of the economically important Upper Carboniferous non-marine pelecypods from their marine relatives and predecessors in the Lower Carboniferous.

5. For the reasons set out above, I now ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers to suppress the specific name *trigonalis* R. Etheridge, jun., 1876, as published in the binomen *Myalina* ? *trigonalis*, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place the above specific name, as suppressed under the plenary powers in (1) above, on the Official Index of Rejected and Invalid Specific Names in Zoology ;

(3) to place the specific name *obesa* R. Etheridge, jun., 1878, as published in the binomen *Anthracoptera* ? *obesa*, on the Official List of Specific Names in Zoology.

1960

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25th January, 1961

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The Official Organ of

THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

W. E. CHINA, C.B.E.

Assistant Secretary to the International Commission on Zoological Nomenclature

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PURCH

BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 17, Part 12 (pp. 353–380, T.P.—XII) 25*th January*, 1961

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE
REPORT FOR 1959

As pointed out in the Report for last year great changes have been made in the organisation and staffing of the Trust. It was also indicated that further changes were in contemplation to bring the publications of the Trust more into line with the expressed wishes of the XVth International Congress of Zoology and in the interests of economy. At the same time attention was drawn to the financial difficulties which were bound to be encountered in 1959 and to the urgent need of an increase in the number of subscribers to the publications.

The Accounts for 1959 now presented show that the note of warning given last year was justified and 1959 must be recorded as a year of transition, but the Trustees are glad to think that the exceptional difficulties of that period have been successfully surmounted. The large drop in income of £12,000, approximately two-thirds by comparison with the income for 1958, is accounted for by the great reduction in publication this year, the amount of which had been greatly increased in 1958 by the documents required for the colloquium at the International Congress and, in particular, in connection with the revision of the International Code.

Expenditure on publications on the other hand is £2,800 less and the total expenditure was reduced by £1,850. The expenditure of the Trust is largely composed of salaries and administrative expenses which are not capable of reduction. The result of the year's working is an excess of expenditure over income of £2,570 and this, the Trustees feel, it is proper to charge to the accumulated reserves of the Trust in view of the exceptional circumstances of 1959. It is, however, their firm intention to restore the reserves, as rapidly as possible, to a figure of £10,000, which they regard as the lowest figure to hold against future contingencies.

It is satisfactory to report a minor but important increase in income of some £300 in interest from the carefully invested funds of the Trust.

It is indeed a pleasant duty to report the receipt from an anonymous British donor of £1,200 to be applied, at the discretion of the Trustees, towards meeting expenditure to be incurred in the future. The Trust take this opportunity of recording their great appreciation of this very generous and welcome gift.

In addition, a grant of £357 was received through the International Union of Biological Sciences, from UNESCO, to assist in the cost of publication and a special grant of 6,000 Swiss Francs was also made from the same Union to permit meetings of the Editorial Committee of the International Code to be held. The Trust, on behalf of the International Commission, record grateful thanks for this generosity.

It will be recalled that the Committee of Management have been seriously studying the possibility of fixing in advance the subscription price of the publications of the Trust and of indicating the number of volumes likely to be published in any given year. They regret their inability to give exact figures at this time but they feel confident that the subscription to the *Bulletin* during 1960 will not exceed £20.

INTERNATIONAL TRUST FO

Incorporated under the Companie

Balance Sheet—

1958 £	1958 £		£ s. d.	£ s. d.
		Revenue Reserves (per separate accounts)—		
	1,474	"Official List" Suspense Account	2,261 15 8	
	10,659	Income and Expenditure Account—Balance	8,083 0 5	
12,133				10,344 16 1
—		*Special Donation*		1,200 0 0
		Liabilities—		
1,270		Sundry Creditors		1,346 6 7
£13,403				£12,891 2 8

REPORT OF

We have obtained all the information and explanations which to the best of our knowledge and belief were
from our examination of those books. We have examined the above Balance Sheet and accompanying Income
our information and according to the explanations given us, the said accounts give the information required by the
Trust's affairs at 31st December 1959, and the Income and Expenditure Account gives a true and fair view of the

Finsbury Circus House,
Blomfield Street,
London, E.C.2.
2nd June, 1960.

ZOOLOGICAL NOMENCLATURE

Act, 1929 (Limited by Guarantee)

1st December 1959

1958 £	£			£ s. d.	£ s. d.	£ s. d.
			Fixed Assets—			
			Office Equipment—			
	568		Book Value at 1st July 1948 and additions since at cost...		626 18 7	
	304		*Less* Depreciation and amount written off to date		336 18 8	
264						290 0 0
			Current Assets—			
	1,455		Amounts due for Publications, valued at		850 0 0	
	87		Sundry Amounts prepaid		123 16 0	
	—		Income Tax Recoverable		87 12 4	
					1,061 8 4	
			Investments at cost—	£ s. d.		
		£2,078	£2,500 2½% Savings Bonds 1964/67...	2,078 10 6		
		2,249	£2,500 3% Savings Bonds 1955/65 ...	2,248 16 9		
			(Market Value at date £4,438) (Ditto 1958 £4,387)			
		4,327		4,327 7 3		
		—	County Borough of Preston 5½% Mortgage	3,000 0 0		
	4,327				7,327 7 3	
			Balances at Bank—			
		5,900	Deposit Account	3,500 0 0		
		1,349	Current Account	676 0 3		
	7,249				4,176 0 3	
	21		Cash in Hand		36 6 10	
13,139						12,601 2 8
			(NOTE—Stock of Publications not valued)			
£13,403						£12,891 2 8

FRANCIS J. GRIFFIN } Members of the Committee
N. D. RILEY } of Management

THE AUDITORS.

necessary for the purposes of our audit. In our opinion proper books of account have been kept, so far as appears
and Expenditure Account, which are in agreement with the books of account. In our opinion and to the best of
Companies Act, 1948, in the manner so required, and the Balance Sheet gives a true and fair view of the state of the
Excess of Expenditure over Income for the year ended on that date.

(Signed) W. B. KEEN & CO.,
Chartered Accountants.

Income and Expenditure Account for

1958 £	£	INCOME	£ s. d.	£ s. d.
		Sales of Publications—		
	6,508	Opinions and Declarations	2,015 16 5	
	12,109	Bulletin of Zoological Nomenclature	1,482 1 6	
	115	Copenhagen Decisions on Zoological Nomenclature	14 2 4	
18,732				3,512 0 3
—		Donation		3 10 2
—		Interest received on Investments (Gross)		222 9 9
132		Interest on Bank Deposit		93 14 0
286		Grant from U.N.E.S.C.O. per the International Union of Biological Sciences		357 2 10
19,150				4,188 17 0
—		Balance, being Excess of Expenditure over Income for the year, carried down		2,576 1 11
£19,150				£6,764 18 11

10,551	Balance brought down	– – –
8,879	Balance at 31st December, 1958 brought forward	10,659 2 4
£19,430		£10,659 2 4

"Official List"

for the year ended

789	Balance at 31st December 1958, brought forward	1,474 7 5
3,800	Transfer from Income and Expenditure Account	– – –
2,816	Sales of Publications	812 8 3
£7,405		£2,286 15 8

Note.—A grant of 6,000 Swiss francs (approximately £494) was made by the International Union of Biological Code. Of the above sum, approximately £411 was paid direct by the I.U.B.S. in respect of transport, A grant of £100 was also received by the Trust from the I.U.B.S., which was applied towards the

e year ended 31st December 1959

£	1958 £	£	EXPENDITURE	£ s. d.	£ s. d.	£ s. d.
			Administration Expenses—			
	3,126		Salaries and National Insurance ...		3,677 0 2	
	1,351		Office Expenses		1,178 7 7	
	136		Audit Fee		52 10 0	
	4,613				4,907 17 9	
			Less: Proportion allocated to			
		100	"Official List"	25 0 0		
		600	"Colloquium"	– – –		
	700				25 0 0	
3,913						4,882 17 9
25			Depreciation of Office Equipment			32 12 7
			Cost of Publications—			
	3,836		Opinions and Declarations		1,138 8 9	
	825		Bulletin of Zoological Nomenclature		710 19 10	
4,661						1,849 8 7
8,599						6,764 18 11
10,551			Balance, being Excess of Income over Expenditure for the year, carried down			– – –
£19,150						£6,764 18 11
—			Balance brought down			2,576 1 11
			Transfers—			
	3,800		"Official List" Suspense Account			– – –
	4,971		"Colloquium" Suspense Account, towards the expenses of the International Congress of Zoology			– – –
8,771						
10,659			Balance carried forward per Balance Sheet			8,083 0 5
£19,430						£10,659 2 4

uspense Account

1st December 1959

	918	Salaries and Office Expenses	– – –	
	100	Proportion of Administration Expenses	25 0 0	
1,018				25 0 0
4,458		Cost of Publications		– – –
355		Binding Cases		– – –
5,931				25 0 0
1,474		Balance carried forward per Balance Sheet		2,261 15 8
£7,405				£2,286 15 8

Sciences for expenses incurred in connection with the meeting of the Editorial Committee of the International
nd the balance of £83 was paid to the Trust, in refund of expenses of members of the Committee.
xpenses of the representative attending meetings of the Editorial Sub-Committee.

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page 17.	Paragraph 24, line 12 : substitute " p.25 " for " p.000 "
page 37.	Paragraph 3, line 4 : substitute " APATANIIDAE " for " APARANIIDAE "
page 43.	Line 5 : substitute " H. B. Herrington " for " E. B. Herrington "
page 55.	Paragraph 9(5), line 1 : substitute " WESTONOCERATIDAE " for " WESTONOCERATIDAE "
page 77.	Paragraph 5, line 3 : substitute " 1924 " for " 1934 "
page 77.	Paragraph 5, line 9 : substitute " reads " for " read "
page 134.	Ruling (2)(a), line 2 : substitute " 1808 " for " 1908 "
page 135.	Ruling (3)(c), line 1 : substitute " 1867 " for " 1900 "
page 135.	Ruling (5)(c), line 1 : substitute " 1867 " for " 1900 "
page 204.	Paragraph 3(3), line 3 : substitute " Generic " for " Specific "
page 222.	Paragraph (6)(a) : substitute " 1929 " for " 1828 "
page 258.	Paragraph (b)(2), line 2 : substitute " Acarina " for " Nematoda "
page 301.	Line 3 : substitute " Acarina " for " Nematoda "
page 308.	Paragraph 19, line 11 : substitute " Trägardh " for " Trägaardh "
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